RECEIVED MAY 8, 2008

Fluor Hanford WSCF Analytical Lab P.O. Box 1000 Richland, WA 99352 Telephone 373-7495 Telefax 372-0456

FLUOR

Memorandum

M4W41-SLF-08-494

To:

H. Hampt

E6-35

Date:

May 8, 2008

From:

S. L. Fitzgerald, Manager

WSCF Analytical Lab

cc:

w/Attachments

T. F. Dale S3-30 H. K. Meznarich S3-30 J. E. Trechter

S3-30

S. J. Trent

P. D. Mix

S3-30

File/LB

E6-35

Subject:

FINAL RESULTS FOR SAMPLE DELIVERY GROUP WSCF20080591 - SAF NUMBER

F08-070

Reference:

(1) Groundwater Protection Program-Letter of Instruction, FH-EIS-2003-MEM-001, October 31, 2002

(2) HNF-SD-CD-QAPP-017, Rev. 8, Waste Sampling & Characterization Facility Quality Assurance Plan

This letter contains the following information for sample delivery group WSCF20080591:

- Cover Sheet (Attachment 1)
- Narrative (Attachment 2)
- Analytical Results (Attachment 3)
- Sample Receipt Information (Attachment 4)
- Sample Record Sheet (Attachment 5)

SLF/grf

Attachments 5

M4W41-SLF-08-494

ATTACHMENT 1

COVER SHEET

Consisting of 2 pages Including cover page

WSCF SAF NUMBER CROSS REFERENCE

	Group#: Data Deliverable Date: Data Deliverable:	WSCF20080591 05-may-2008 Cover Sheet	
SAF#	Sample ID	WSCF#	Matrix
F08-070	B1TN39 B1TN41 B1TN43 B1TNP2	W08GR00697 W08GR00694 W08GR00696 W08GR00695	SOIL SOIL SOIL

Report Date: 8-may-2008 Group#: WSCF20080591 Report WGPPS/5.3 M4W41-SLF-08-494

ATTACHMENT 2

NARRATIVE

Consisting of 5 pages Including cover page

Introduction

Six S&GRP samples were received at the WSCF Laboratory on March 20, 2008. Two of the samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Groundwater Remediation Program – Letter of Instruction*, referenced in the cover letter. Analysis of the high concentration VOAs and the associated Methanol Blanks (B1TNP1 and B1TN40) were not required.

The narrative (Attachment 2) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 3) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information as applicable. Copies of the chain of custody and sample receipt documentation are included as Attachment 4. Additionally, a copy of the sample record sheet is included as Attachment 5.

It should be noted that the attached chain of custody was stamped "ICED" by the WSCF Laboratory Sample Custodian during sample receiving, indicating the presence of ice in the sample container.

Analytical Methodology for Requested Analyses

Refer to WSCF Method References Report, pages 14 through 16, for a complete listing of approved analytical methods.

Inorganic Comments

Ammonia – The hold time requirement for this analysis was met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per GRP Letter of Instruction. See page 21 for QC details. Analytical Note(s):

- Sample result was D flagged (dilution).
- Matrix Spike and Matrix Spike Duplicate recoveries were less than established laboratory limits. Sample result was N flagged.

All other QC controls are within the established limits.

Anions – Holding time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per GRP Letter of Instruction. See pages 22 through 23 for QC details. Analytical Note(s):

- Sample results were D flagged if dilution(s) were required.
- Sample results that were less than the reportable limit, however greater than the method detection limit were B flagged.

All QC controls are within the established limits.

Cyanide – The hold time requirement for this analysis was met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per GRP Letter of Instruction. See page 24 for QC details.

All QC controls are within the established limits.

ICP-AES Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per the GRP Letter of Instruction. See pages 25 through 26 for QC details. Analytical Note(s):

- Lithium Due to possible Calcium interface, the spectrum was manually checked and calculated. Sample results were E flagged (estimates).
- Aluminum, Iron and Sodium sample results exceeded spiking levels by a factor of 4. Spike recoveries are not valid. Check and high standards were analyzed to ensure sample result linearity because the sample results were greater than the calibration standard.
- No Lithium present in LCS.

All other QC controls are within the established limits.

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per the GRP Letter of Instruction. See pages 27 through 31 for QC details. Analytical Note(s):

- Matrix Spikes and Matrix Spike Duplicates were analyzed on samples B1TTD4 (SDG# 20080650, SAF# F08-088) and B1TN41 of this SDG
- Mercury contamination detected in the Blank was evaluated and there was no affect on sample results.

All other QC controls are within the established limits.

Organic Comments

All organic results corrected for moisture and reported on a dry weight basis.

Alcohol/Glycols - The hold time requirement for this analysis was met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per GRP Letter of Instruction. See page 45 for QC details.

All QC controls are within the established limits.

Semi-VOA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per the GPP Letter of Instruction. See pages 46 through 51 for QC details. Analytical Note(s):

• Sample results that were less than the lowest calibration standard, however greater than the method detection limit were J flagged.

All QC controls are within the established limits.

TPHD-WA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. See page 52 for QC details.

All QC controls are within the established limits.

VOA – The holding time requirement for this analysis was met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample, were analyzed with this delivery group per the GRP Letter of Instruction. See pages 53 through 56 for QC details. Analytical Note(s):

- Analysis of the high concentration VOAs and the associated Methanol Blanks (B1TNP1 and B1TN40) were not required.
- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1TDD1 (SDG# 20080561, SAF# F08-043).

All QC controls are within the established limits.

Rad Chem – There are no hold times associated with WSCF's radiochemical methods. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. See pages 63 through 68 for QC details.

- Americium-241 and 243 (tracer) Duplicate QC was analyzed on sample# B1TDD3 (SDG# 20080561, SAF# F08-043).
- Neptunium-237 Duplicate QC, Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1TDD3 (SDG# 20080561, SAF# F08-043). Matrix Spikes were also analyzed on B1TN41 and B1TNP2 of this SDG.
- Plutonium-238, 239/240, 242 (tracer) Duplicate QC was analyzed on sample# B1TDD3 (SDG# 20080561, SAF# F08-043).
- Uranium-232 (tracer), 233/234, 235 and 238 Duplicate QC was analyzed on sample# B1TDD3 (SDG# 20080561, SAF# F08-043).

All QC controls are within the established limits.

I certify that this data package is in compliance with the LOI, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Analytical Manager and Client Services as verified by the following signatures.

Scot L. Fitzgerald

WSCF Analytical Laboratory Manager

John E. Trechter

WSCF Client Services

M4W41-SLF-08-494

ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 60 pages Including cover page

WSCF ANALYTICAL RESULTS REPORT

for

Groundwater Remediation Program

Richland, WA 99354

Attention: Steve Trent

Analytical: # 5. 6. 4250.06 Client Services: 2004 6.0.1111.x 6/8/2008

All results are reported on an "as received" basis unless otherwise noted in the comment section.

This information is intended for the use of the addressee only. If the reader of this report is not the intended recipient

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Information designation of this report is the responsibility of the customer.

Contract#: FH-EIS-2003-MEM-001 Report#: WSCF20080591

Report#: wSCF20080591 Report Date: 8-may-2008

Report WGPP/ver. 5.2

Groundwater Remediation Program

Department: Inorganic

W13q Worklist/Batch/QC Report for Group# WSCF20080591

WL#	S#	Batch	QC#	Tray Type SAMPLE SAMPLE	Sample# W08GR00694 W08GR00695	Test Percent Solids Percent Solids
35806 35806 35806 35806 35806 35806 35806	2 4 5 3 5	36212 36212 36212 36212 36212 36212 36212	40508 40508 40508 40508 40508	BLANK LCS MS MSD SAMPLE SPK-RPD SAMPLE	W08GR00694 W08GR00694 W08GR00694 W08GR00694 W08GR00695	Cyanide by Midi/Spectrophotom Cyanide by Midi/Spectrophotom Cyanide by Midi/Spectrophotom Cyanide by Midi/Spectrophotom Cyanide by Midi/Spectrophotom Cyanide by Midi/Spectrophotom Cyanide by Midi/Spectrophotom
35812 35812 35812 35812 35812 35812 35812 35812 35812	2 7 8 6 8 9 4 5	36217 36217 36217 36217 36217 36217 36217 36217 36217	40513 40513 40513 40513 40513 40513 40513	BLANK LCS MS MSD SAMPLE SPK-RPD SAMPLE MS MSD SPK-RPD	W08GR00694 W08GR00694 W08GR00694 W08GR00695 W08GR00781 W08GR00781 W08GR00781	ICP-200.8 MS All possible meta
35875 35875 35875 35875 35875 35875 35875 35875	17 3 5 6 7 4 7	36280 36280 36280 36280 36280 36280 36280 36280 36280	40566 40566 40566 40566 40566 40566	BLANK BLANK LCS DUP MS MSD SAMPLE SPK-RPD SAMPLE	W08GR00694 W08GR00694 W08GR00694 W08GR00694 W08GR00695	Anions by Ion Chromatography
35886 35886 35886 35886 35886 35886 35886 35886	12 2 5 6 7 4 7	36301 36301 36301 36301 36301 36301 36301 36301	40569 40569 40569 40569 40569 40569	BLANK BLANK LCS DUP MS MSD SAMPLE SPK-RPD SAMPLE	W08GR00694 W08GR00694 W08GR00694 W08GR00694 W08GR00695	Ammonia (N) by IC
35906 35906 35906 35906 35906 35906	2 4 5 3 5	36325 36325 36325 36325 36325 36325 36325	40618 40618 40618 40618 40618	BLANK LCS MS MSD SAMPLE SPK-RPD SAMPLE	W08GR00694 W08GR00694 W08GR00694 W08GR00694 W08GR00695	ICP Metals Analysis, Grd H20 P ICP Metals Analysis, Grd H20 P

Department: Organic

W13q Worklist/Batch/QC Report for Group# WSCF20080591

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
			40600 40600 40600 40600 40600 40600 40600 40600	BLANK LCS MS MSD SAMPLE SPK-RPD SURR SAMPLE SURR SURR	W08GR00694 W08GR00694 W08GR00694 W08GR00694 W08GR00695 W08GR00695	SW-846 8270C Semi-Vols SW-846 8270C Semi-Vols
			40612 40612 40612 40612 40612 40612 40612 40612	BLANK LCS MS MSD SAMPLE SPK-RPD SURR SAMPLE SURR SURR	W08GR00694 W08GR00694 W08GR00694 W08GR00694 W08GR00695 W08GR00695	NWTPH-D TPH Diesel Range (Wa)
			40898 40898 40898 40898 40898 40898 40898 40898	BLANK LCS MS MSD SPK-RPD SAMPLE SURR SAMPLE SURR SURR	W08GR00665 W08GR00665 W08GR00665 W08GR00696 W08GR00697 W08GR00697	VOA Ground Water Protection
36181 36181 36181 36181 36181 36181 36181	2 4 5 6 3 6	36600 36600 36600 36600 36600 36600 36600	40922 40922 40922 40922 40922 40922	BLANK LCS DUP MS MSD SAMPLE SPK-RPD SAMPLE	W08GR00694 W08GR00694 W08GR00694 W08GR00694 W08GR00695	Alcohols, Glycols - 8015

Department: Radiochemistry

W13q Worklist/Batch/QC Report for Group# WSCF20080591

WL# 35861 35861 35861	1 2	36267 36267	QC# 40754 40754 40754	Tray Type BLANK LCS DUP	Sample# W08GR00694	Test Strontium 89/90 Strontium 89/90 Strontium 89/90
35861			40754	SAMPLE	W08GR00694	Strontium 89/90
35861			40754	SURR	W08GR00694	Strontium 89/90
35861			40754	SAMPLE	W08GR00695	Strontium 89/90
35861	7	36267	40754	SURR	W08GR00695	Strontium 89/90
35714		36120		BLANK		Gamma Energy Analysis-grd H2O
35714			40775	LCS	E10.0 CD 0.0 CO 4	Gamma Energy Analysis-grd H20
35714			40775	DUP SAMPLE	W08GR00694 W08GR00694	Gamma Energy Analysis-grd H20 Gamma Energy Analysis-grd H20
35714 35714			40775 40775	SAMPLE	W08GR00695	Gamma Energy Analysis-grd H20
35796	1	36201	40794	BLANK		Uranium Isotopics by AEA
35796	2	36201	40794	LCS		Uranium Isotopics by AEA
35796			40794	DUP	W08GR00663	Uranium Isotopics by AEA
35796			40794	SAMPLE	W08GR00694	Uranium Isotopics by AEA
35796			40794	SURR	W08GR00694	Uranium Isotopics by AEA
35796 35796			40794 40794	SAMPLE SURR	W08GR00695 W08GR00695	Uranium Isotopics by AEA Uranium Isotopics by AEA
35835	1	26241	40799	BLANK		Plutonium Isotopics by AEA
35835			40799	LCS		Plutonium Isotopics by AEA
35835			40799	DUP	W08GR00663	Plutonium Isotopics by AEA
35835			40799	SAMPLE	W08GR00694	Plutonium Isotopics by AEA
35835			40799	SURR	W08GR00694	Plutonium Isotopics by AEA
35835			40799	SAMPLE	W08GR00695	Plutonium Isotopics by AEA
35835	9	36241	40799	SURR	W08GR00695	Plutonium Isotopics by AEA
35836		36242		BLANK		Americium by AEA
35836		36242	40800	LCS DUP	W08GR00663	Americium by AEA Americium by AEA
35836 35836			40800	SAMPLE	W08GR00694	Americium by AEA Americium by AEA
35836			40800	SURR	W08GR00694	Americium by AEA
35836		36242		SAMPLE	W08GR00695	Americium by AEA
35836		36242		SURR	W08GR00695	Americium by AEA
36175			40928	BLANK		Neptunium by AEA
36175			40928	LCS		Neptunium by AEA
36175			40928	DUP	W08GR00663	Neptunium by AEA
36175			40928 40928	MS MSD	W08GR00663 W08GR00663	Neptunium by AEA Neptunium by AEA
36175 36175			40928	SPK-RPD	W08GR00663	Neptunium by AEA Neptunium by AEA
36175			40928	MS	W08GR00694	Neptunium by AEA
36175			40928	SAMPLE	W08GR00694	Neptunium by AEA
			40928	MS	W08GR00695	Neptunium by AEA
36175	9	36592	40928	SAMPLE	W08GR00695	Neptunium by AEA

METHOD REFERENCES REPORT

Department: Inorganic

industry method is listed here even though the WSCF procedure may reference an older version of the method. Also, a reference to a regulatory or industry The results provided in this report were generated using the following WSCF Laboratory procedures. For your convenience, this table provides a listing of the regulatory or industry methods that are referenced by each of these WSCF procedures. Please note that the most recent version of the regulatory or method here does not necessarily indicate a verbatim implementation of that method.

LA-503-401: ANALYSIS OF CATIONS BY ION CHROMATOGRAPHY LA-503-401

Dissolved Sodium, Ammonium, Potassium, and Calcium in Wet Deposition by Chemical EPA-600/4-86-024 300.7

HEIS 300.7_CATIONS_IC Determination of Ammonium by Ion Chromatography

LA-505-411: ELEMENTAL ANALYSIS BY INDUCTIVELY COUPLED PLASMA ATOMIC EMISSION SPE LA-505-411

Inductively Coupled Plasma-Atomic Emmission Spectrometry HEIS 6010 METALS ICP

LA-505-412: DETERMINATION OF TRACE ELEMENTS IN WATERS AND WASTES BY INDUCTIVELY LA-505-412 DETERMINATION OF TRACE ELEMENTS IN WATERS AND WASTES BY INDUCTIVELY COUPLED PLAS EPA-600/R-94-111 200.8

HEIS 200.8 METALS ICPMS Inductively Coupled Plasma - Mass Spectrometry

HEIS RADISOTOPES_ICPMS Radioisotopes by ICP/MS

LA-519-412: TOTAL RESIDUE/% SOLIDS DRIED AT 103 - 105 C LA-519-412

EPA-600/4-79-020 160.1 Resisual, Filterable

EPA-600/4-79-020 160.3 RESIDUE, TOTAL

HEIS 160.1_TDS Residual, Filterable

Standard Methods 2540B Total Solids Dried at 103-105 C

LA-533-410: ANION ANALYSIS BY ION CHROMATOGRAPHY LA-533-410

DETERMINATION OF INORGANIC ANIONS BY ION CHROMATOGRAPHY EPA-600/R-94-111 300.0

HEIS 300.0 ANIONS IC Determination of Inorganic Anions by Ion Chromatography

LA-695-402: DETERMINATION OF CYANIDE BY MIDIDISTILLATION AND SPECTROPHOTOMETRIC Cyanide, Total EPA-600/4-79-020 335.2 LA-695-402

HEIS 335.2 CYANIDE Cyanide, Total

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at http://www2.rl.gov/phmc/as-dol.

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METHOD REFERENCES REPORT

Department: Organic

industry method is listed here even though the WSCF procedure may reference an older version of the method. Also, a reference to a regulatory or industry The results provided in this report were generated using the following WSCF Laboratory procedures. For your convenience, this table provides a listing of the regulatory or industry methods that are referenced by each of these WSCF procedures. Please note that the most recent version of the regulatory or method here does not necessarily indicate a verbatim implementation of that method.

LA-523-455: VOLATILE SAMPLE ANALYSIS BY SW-846 LA-523-455

DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS EPA SW-846 8000B

VOLATILE ORGANIC COMPOUNDS BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS) EPA SW-846 8260B

Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) HEIS 8260_VOA_GCMS

LA-523-456: SEMIVOLATILE SAMPLE ANALYSIS BY SW-846, METHOD 8270C LA-523-456

DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS EPA SW-846 8000B

SEMIVOLATILE ORGANIC COMPOUNDS BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS) EPA SW-846 8270C

Semivolatile Organoc Compounds By Gas Chromatography/Mass Spectrometry (GC/MS) HEIS 8270 SVOA GCMS

NWTPH-Diesel and/or Gasoline LA-523-493 HEIS WTPH DIESEL (HEIS) Total Petroleum Hydrocarbons in Diesel

Total Petroleum Hydrocarbons in Diesel

WDOE TPHD

Organics - Alcohols, Glycols

Organics

Nonhalogenated Organics Using GC/FID EPA SW-846 8015B

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at http://www2.rl.gov/phmc/as-dol.

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Report WGPPM/5.2

METHOD REFERENCES REPORT

Department: Radiochemistry

industry method is listed here even though the WSCF procedure may reference an older version of the method. Also, a reference to a regulatory or industry The results provided in this report were generated using the following WSCF Laboratory procedures. For your convenience, this table provides a listing of the regulatory or industry methods that are referenced by each of these WSCF procedures. Please note that the most recent version of the regulatory or method here does not necessarily indicate a verbatim implementation of that method. LA-508-415: OPERATION OF THE PROTEAN 2-INCH ALPHA/BETA COUNTING SYSTEM FOR GROSS LA-508-415

GROSS ALPHA GPC HEIS ALPHA GPC

GROSS BETA GPC HEIS BETA GPC

HEIS SRTOT SEP PRECIP GEGrontium 89/90

LA-508-471: ALPHA ENERGY ANALYZER DATA ACQUISITION AND SYSTEM CHECKOUT USING ALP LA-508-471

HEIS PUISO_IE_PRECIP_AEAPlutonium by Alpha Energy Analysis

Radium-226 HEIS RAISO AEA LA-508-481: GAMMA ENERGY ANALYSIS USING PROCOUNT SOFTWARE Gamma Emmision Spectrometry

HEIS GAMMA_GS

LA-508-481

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at http://www2.rl.gov/phmc/as-dol.

Report Date: 8-may-2008

Report#: WSCF20080591 Report WGPPM/5.2

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Page

U - Analyzed for but not detected above limiting criteria.

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ANALYTICAL RESULTS REPORT WSCF

Attention: Steve Tr SAF Number:F08-070 Sample # W08GR	Steve Trent r:F08-070 W08GR00694									Group #: Department: Sampled:	WSCF20080591 Inorganic 03/19/08
Client ID:		TRENT WSCF			Σ	Matrix:	SOIL			Received:	03/20/08
Test Performed	CAS#	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chr.	Anions by Ion Chromatography Prep										04/07/08
Amons by fon Cinconatography	omatograpmy										
Fluoride	16984-48-8	LA-533-410	2	< 0.300	0 mg/kg			20.00	0.30		04/07/08
Chloride	16887-00-6	LA-533-410	8	2.26	3 mg/kg			50.00	1.5		04/07/08
Nitrogen in Nitrite	NO2-N	LA-533-410	20	< 0.500	0 mg/kg			50.00	0.50		04/07/08
Nitrogen in Nitrate	NO3-N	LA-533-410	BD	2.89	9 mg/kg			50.00	0.25		04/07/08
Phosphate (P) by IC	P04-P	LA-533-410	na	< 2.00) mg/kg			50.00	2.0		04/07/08
Sulfate	14808-79-8	LA-533-410	BD	11.8	3 mg/kg			50.00	3.5		04/07/08
Cyanide											
Cyanide	57-12-5	LA-695-402	D	< 0.200	0 mg/kg			1.00	0.20		04/01/08
ICP Metals Analysi	ICP Metals Analysis, Grd H20 P Prep										04/09/08
ICP Metals Analysis, Grd H20 P	is, Grd H20 P										
Aluminum	7429-90-5	LA-505-411		5.82e+03	+03 mg/kg			98.35	3.0		04/09/08
Iron	7439-89-6	LA-505-411		1.48e+04	+04 mg/kg			98.35	0.89		04/09/08
Nickel	7440-02-0	LA-505-411		17.0) mg/kg			98.35	0.39		04/09/08
Silver	7440-22-4	LA-505-411	ח	< 0.492	2 mg/kg			98.35	0.49		04/09/08
Sodium	7440-23-5	LA-505-411		202	7 mg/kg			98.35	2.7		04/09/08
Copper	7440-50-8	LA-505-411		8.88	3 mg/kg			98.35	0.39		04/09/08
Lithium	7439-93-2	LA-505-411	Е	8.56	3 mg/kg			98.35	0.39		04/09/08
Boron	7440-42-8	LA-505-411	<u></u>	< 0.787	7 mg/kg			98,35	0.79		04/09/08
ICP-200.8 MS All possible meta Prep	possible meta Prep										04/01/08
ICP-200.8 MS All possible meta	possible meta										
Manganese	7439-96-5	LA-505-412		254	t mg/kg			1.00	0.0996		04/02/08
Antimony	7440-36-0	LA-505-412	n	< 0.299	9 mg/kg			1.00	0.299		04/02/08
Barium	7440-39-3	LA-505-412		78.1	l mg/kg			1.00	0.199		04/02/08
MDL = Minimum Detection Limit		B - The analyte < the RDL but > =	the RDL bu	> = the IDI	the IDL/MDL (inorg)		D - Analyte v	D - Analyte was identified at a secondary dilution factor	secondary dil	ution factor	
RQ=Result Qualifier		D - Analyte was identified at a secondary dilution factor(inorg)	entified at a	secondary o	dilution factor(norg)	E - Analyte is	E - Analyte is an estimate, has potentially larger errors(inorg)	potentially lar	ger errors(inorg)	
TP Err=Total Propagated Error		J - Analyte < lowest calibration but	st calibration	n but > = A	> = MDL.(org)		N - Spike sar	N - Spike sample recovery is outside control limits. (inorg)	utside control	limits.(inorg)	

U - Analyzed for but not detected above limiting criteria(inorg) DE = Dilution Factor
L Indicates results that have NOT been validat
G Report WGPP/ver. 5.2
Groundwater Remediation Program

^{* -} Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols Report WGPP/ver. 5.2

ANALYTICAL RESULTS REPORT WSCF

Group #: WSCF20080591 Department: Inorganic Sampled: 03/19/08 Received: 03/20/08	Unit DF MDL PQL Analysis Date	1.00 0.0498 04/02/08	1.00 0.0996 04/02/08	1.00 0.498 04/02/08	1.00 0.0498 04/02/08	1.00 0.199 04/02/08	1.00	1.00 0.0996 04/02/08	1.00 0.0498 04/02/08	1.00 0.0498 04/02/08	1.00 0.398 04/02/08	1.00 0.299 04/02/08	1.00 0.0996 04/02/08	1.00 0.0996 04/02/08	04/07/08	50.00 0.20 04/07/08	1.00 0.0 03/31/08
Matrix:	Unit TP Err	mg/kg	mg/kg	mg/kg	mg/kg		mg/kg	Percent									
	Result	0.200	> 0.0996	10.7	4.92	29.7	31.1	2.82	< 0.0498	0.360	2.40	< 0.299	1.18	25.8		< 0.200	97.0
	RQ		D						· 			` 				DNO	
FRENT	WSCF Method RQ	LA-505-412	LA-505-412 U	LA-505-412	LA-505-412	LA-505-412	LA-505-412	LA-505-412		LA-505-412	LA-505-412		LA-505-412	LA-505-412			LA-519-412
Attention: Steve Trent SAF Number:F08-070 Sample # W08GR00694 Client ID: B1TN41 TRENT	WSCF CAS # Method RQ	7440-41-7 LA-505-412		7440-47-3 LA-505-412	7440-48-4 LA-505-412	7440-62-2 LA-505-412	7440-66-6 LA-505-412	7439-92-1 LA-505-412	D	7440-61-1 LA-505-412	7440-38-2 LA-505-412	D	7440-28-0 LA-505-412	7440-24-6 LA-505-412	Nitrogen in ammonium Prep Nitrogen in ammonium	DNO	TS LA-519-412

MDL = Minimum Detection Limit	MDL = Minimum Detection Limit B - The analyte < the RDL but > = the IDL/MDL (inorg)	D - Analyte v
RQ=Result Qualifier	D - Analyte was identified at a secondary dilution factor(inorg)	E - Analyte is
TP Err=Total Propagated Error	J - Analyte < lowest calibration but > = MDL.(org)	N - Spike sar
▶ DF = Dilution Factor	U - Analyzed for but not detected above limiting criteria(inorg)	U - Analyzed
Section 1997 TOW county of the section is a section in the section	8 + Indiana condent that Law MOT have collidated.	

is an estimate, has potentially larger errors(inorg) ample recovery is outside control limits. (inorg)

was identified at a secondary dilution factor

ed for but not detected above limiting criteria.

⁻ Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

ANALYTICAL RESULTS REPORT

Atte SAF Sam	Attention: Steve Tr SAF Number:F08-070 Sample # W08GR	ent 00695				,				OA 331	Group #: Department: Sampled:	WSCF20080591 Inorganic 03/19/08
Clie	Client ID:	B1TNP2	TRENT			Matrix:		SOIL		ž	Received:	03/20/08
Test Per	Test Performed	CAS#	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions b	y Ion Chro	Anions by Ion Chromatography Prep										04/07/08
Fluoride		16984-48-8	3 LA-533-410	ρΩ	< 0.294	mg/kg			49.00	0.29		04/07/08
Chloride		16887-00-6		80	2.13	mg/kg			49.00	1.5		04/07/08
Nitrogen in Nitrite	Nitrite	N02-N	LA-533-410	na	< 0.490	mg/kg			49.00	0.49		04/07/08
Nitrogen in Nitrate	Nitrate	NO3-N	LA-533-410	80	2.94	mg/kg			49.00	0.24		04/07/08
Phosphate (P) by IC	(P) by IC	P04-P	LA-533-410	na	< 1.96	mg/kg			49.00	2.0		04/07/08
Sulfate		14808-79-8	3 LA-533-410	80	16.2	mg/kg			49.00	3.4		04/07/08
Cyanide												
Cyanide		57-12-5	LA-695-402	ם	< 0.200	mg/kg			1.00	0.20		04/01/08
ICP Met. ICP Met	als Analysis als Analysis	ICP Metals Analysis, Grd H20 P Prep ICP Metals Analysis, Grd H20 P										04/09/08
Aluminum	•	7429-90-5	LA-505-411		5.61e+03	3 mg/kg			99.42	3.0		04/09/08
Iron		7439-89-6	LA-505-411		1.55e+04	4 mg/kg			99.42	0.89		04/09/08
Nickel		7440-02-0	LA-505-411		21.3	mg/kg			99.42	0.40		04/09/08
Silver		7440-22-4	LA-505-411	ם	< 0.497	mg/kg			99.42	0.50		04/09/08
Sodium		7440-23-5	LA-505-411		484	mg/kg			99.42	2.7		04/09/08
Copper		7440-50-8	LA-505-411		10.0	mg/kg			99.42	0.40		04/09/08
Lithium		7439-93-2	LA-505-411	ш	7.92	mg/kg			99.42	0.40		04/09/08
Boron		7440-42-8	LA-505-411	ם	< 0.795	mg/kg			99.42	0.80		04/09/08
ICP-200.	8 MS All p	ICP-200.8 MS All possible meta Prep										04/01/08
ICP-200.	8 MS All p	ICP-200.8 MS All possible meta										
Manganese		7439-96-5	LA-505-412		274	mg/kg			1.23	0.123		04/02/08
Antimony		7440-36-0	LA-505-412	ח	< 0.368	mg/kg			1.23	0.368		04/02/08
Barium		7440-39-3	LA-505-412		73.7	mg/kg			1.23	0.245		04/02/08
MDL=N	finimum D	MDL=Minimum Detection Limit	B - The analyte < the RDL but > = the IDL/MDL (inorg)	the RDL bu	It > = the IDL/N	1DL (inorg)		D - Analyte w	D - Analyte was identified at a secondary dilution factor	secondary diluti	on factor	
RQ=Res	RQ=Result Qualifier		D - Analyte was identified at a secondary dilution factor(inorg)	entified at	a secondary dilu	tion factor(inorg	6	E - Analyte is	E - Analyte is an estimate, has potentially larger errors(inorg)	potentially large	er errors(inorg)	
TP Err=	Total Prop	agated Error	J - Analyte < lowest calibration but > = MDL.(org)	est calibrat	on but > = MD	L.(org)		N - Spike sam	N - Spike sample recovery is outside control limits.(inorg)	rtside control lin	nits.(inorg)	
DF=Dilt	DF=Dilution Factor		U - Analyzed for but not detected above limiting criteria(inorg)	ut not dete	cted above limit	ing criteria(inorg	~	U - Analyzed	U - Analyzed for but not detected above limiting criteria	ed above limitín	g criteria.	

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ANALYTICAL RESULTS REPORT WSCF

WSCF20080591 Inorganic 03/19/08	03/20/08	Analysis Date	04/02/08	04/02/08	04/02/08	04/02/08	04/02/08	04/02/08	04/02/08	04/02/08	04/02/08	04/02/08	04/02/08	04/02/08	04/02/08	04/07/08	04/07/08	03/31/08
Group #: Department: Sampled:	Received:	PQL																
S C S	~	MDL	0.0613	0.123	0.613	0.0613	0.245	0.981	0.123	0.0613	0.0613	0.490	0.368	0.123	0.123		0.20	0.0
		DF	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23		49.00	1.00
	SOIL	Unit																
	Matrix: S	TP Err																
	Ma	ij	 	E	_	_	Г	50	_	_		_	_	_	T.		ō	'n
		Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		mg/kg	Percent
		Result Un	0.330 mg/k	< 0.123 mg/kg	12.4 mg/kg	6.18 mg/kg	32.0 mg/kg	35.8 mg/k	4.03 mg/kg	< 0.0613 mg/kg	0.720 mg/kg	4.78 mg/kg	< 0.368 mg/kg	1.79 mg/kç	32.0 mg/kg		< 0.196 mg/k	96.6 Perce
		Result		0.123						0.0613			0.368				0.196	
	RENT 'SCF	Method RQ Result		< 0.123						< 0.0613			< 0.368				> 0.196	
Attention: Steve Trent SAF Number:F08-070 Sample # W08GR00695	BITNP2 TRENT WSCF	thod RQ Result	0.330	U < 0.123	12.4	6.18	32.0	35.8	4.03	U < 0.0613	0.720	4.78	U < 0.368	1.79	32.0	Nitrogen in ammonium Prep	DNU < 0.196	9.96

MDL = Minimum Detection Limit	MDL = Minimum Detection Limit B - The analyte < the RDL but > = the IDL/MDL (inorg)	D - Analyte was identified at a secondary dilution factor
RQ=Result Qualifier	D - Analyte was identified at a secondary dilution factor(inorg)	E - Analyte is an estimate, has potentially larger errors(inorg)
TP Err = Total Propagated Error	TP Err=Total Propagated Error J - Analyte < lowest calibration but > = MDL.(org)	N - Spike sample recovery is outside control limits.(inorg)
DF=Dilution Factor	U - Analyzed for but not detected above limiting criteria(inorg)	U - Analyzed for but not detected above limiting criteria.
• - Indicates results that have NOT been valid	lated: + - Indicates more than six qualifier symbols	

Department: Inorganic

	Analysis Date		04/07/08	04/07/08	04/07/08	04/07/08		04/07/08	04/07/08	04/07/08
19/08	RQ		o n	Ö	Ö	Ö		ō n	ŏ	Ó
Sample Date: 03/19/08 Receive Date:03/20/08	RPD		20.000	•	•	20.000				
Sampl Receiv	RPD(%)		n/a			1.086				
	Upper Limit			125.000	125.000			0.002	0.002	120.000
	Lower			75.000	75.000			0.000	0.000	80.000
	Lower Units Limit		RPD	% Recov	% Recov	RPD		mg/L	mg/L	% Recov
	QC Yield			37.492	37.087			n/a	n/a	90.724
	QC Found QC Yield		<0.2	0.187458	0.185434	37.087		<4e-3	<4e-3	90.7239
11	CAS#	TTH SAMPLE	7664-41-7	7664-41-7	7664-41-7	7664-41-7		7664-41-7	7664-41-7	7664-41-7
SDG Number: WSCF20080591 Matrix: SOLID Test: Ammonia (N) by IC	Analyte	Lab ID: W08GR00694 BATCH QC ASSOCIATED WITH SAMPLE	Ammonia (N) by IC	o c	Ammonia (N) by IC	Ammonia (N) by IC	Ammonia (N) by IC			
SDG Ni Matrix: Test: Ai	QC Type	Lab ID: BATCH	DUP	MS	MSD	SPK-RPD	BATCH QC	BLANK	BLANK	SOT

Department: Inorganic

	Analysis Date			04/07/08	04/07/08	04/07/08	04/07/08	04/07/08	04/07/08	04/07/08	04/07/08	04/07/08	04/07/08	04/07/08	04/07/08	04/07/08	04/07/08	04/07/08	04/07/08	04/07/08	04/07/08	04/07/08	04/07/08	04/07/08	04/07/08	04/07/08	04/07/08
/19/08/20/08	RQ				D	ס		ם												Ū	J	Ū	Ū	Ū	Ū	Ū	Ü
Sample Date: 03/19/08 Receive Date:03/20/08	RPD Limit			20.000	20.000	20.000	20.000	20.000	20.000													20.000	20.000	20.000	20.000	20.000	20.000
Sampl Receir	RPD(%)			3.253	n/a	n/a	15.779	n/a	17.102													1.141	0.955	3.080	1.055	0.636	0.673
	Upper Limit									125.000	125.000	125.000	125.000	125.000	125.000	125.000	125.000	125.000	125.000	125.000	125.000						
	Lower Limit									75.000	75.000	75.000	75.000	75.000	75.000	75.000	75.000	75.000	75.000	75.000	75.000						
	I Units			RPD	RPD	RPD	RPD	RPD	RPD	% Recov	% Recov	% Recov	% Recov	% Recov	% Recov	% Recov	% Recov	% Recov	% Recov	% Recov	% Recov	RPD	RPD	RPD	RPD	RPD	RPD
	QC Yield									95.512	97.115	97.694	100.843	95.085	97.251	94.428	96.192	94.731	99.785	95.692	96.599						
	QC Found			2.3368	<0.3	<0.5	3.388	<2	14.0456	0.955116	0.483634	0.485538	0.453794	0.919476	1.925564	0.94428	0.479034	0.470814	0.449032	0.925338	1.912654	94.428	96.192	94.731	99.785	95.692	96.599
ohy	CAS#		H SAMPLE	16887-00-6	16984-48-8	NO2-N	NO3-N	PO4-P	14808-79-8	16887-00-6	16984-48-8	NO2-N	NO3-N	P04-P	14808-79-8	16887-00-6	16984-48-8	NO2-N	NO3-N	P04-P	14808-79-8	16887-00-6	16984-48-8	NO2-N	NO3-N	PO4-P	14808-79-8
SDG Number: WSCF20080591 Matrix: SOLID Test: Anions by Ion Chromatography	Analyte	l	Lab ID: W08GR00694 BATCH QC ASSOCIATED WITH SAMPLE	Chloride	Fluoride	Nitrogen in Nitrite	Nitrogen in Nitrate	Phosphate (P) by IC	Sulfate	Chloride	Fluoride	Nitrogen in Nitrite	Nitrogen in Nitrate	Phosphate (P) by IC	Sulfate	Chloride	Fluoride	Nitrogen in Nitrite	Nitrogen in Nitrate	Phosphate (P) by IC	Sulfate	Chloride	Fluoride	Nitrogen in Nitrite	Nitrogen in Nitrate	Phosphate (P) by IC	Sulfate
SDG Ni Matrix: Test: Ai	QC Type		Lab ID: BATCH	DUP	DUP	DUP	DUP	DUP	DUP	MS	MS	MS	MS	MS	MS	MSD	MSD	MSD	MSD	MSD	MSD	SPK-RPD	SPK-RPD	SPK-RPD	SPK-RPD	SPK-RPD	SPK-RPD

25 et al.:01:07 Beport w13gq/rev.4.2 p 20 s-may-2008 11:01:07

Department: Inorganic

Matrix: SOLID	to caroa ha						Sam	Sample Date: Receive Date:		
ons by fon Cilionia	wgiapiiy							ive Date.		
Analyte	CAS#	QC Found QC Yield	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
ВАТСН ОС										
Chloride	16887-00-6	<3e-2	n/a	mg/L	0.000	0.030			n	04/07/08
Chloride	16887-00-6	<3e-2	n/a	mg/L	0.000	0.030			⊃	04/07/08
Fluoride	16984-48-8	< 6e-3	n/a	mg/L	0.000	0.030			ם	04/07/08
Fluoride	16984-48-8	<6e-3	n/a	mg/L	0.000	0.030			⊃	04/07/08
Nitrogen in Nitrite	N02-N	<18-2	n/a	mg/L	0.000	0.020			ם	04/07/08
Nitrogen in Nitrite	NO2-N	<1e-2	n/a	mg/L	0.000	0.020			⊃	04/07/08
Nitrogen in Nitrate	N03-N	<5e-3	n/a	mg/L	0.000	0.040			⊃	04/07/08
Nitrogen in Nitrate	NO3-N	<5e-3	n/a	mg/L	0.000	0.040			⊃	04/07/08
Phosphate (P) by IC	P04-P	<4e-2	n/a	mg/L	0.000	0.200			⊃	04/07/08
Phosphate (P) by IC	P04-P	<4e-2	n/a	mg/L	0.000	0.200			⊃	04/07/08
Sulfate	14808-79-8	< 7e-2	n/a	mg/L	0.000	0.200			n	04/07/08
Sulfate	14808-79-8	<7e-2	n/a	mg/L	0.000	0.200			⊃	04/07/08
Chloride	16887-00-6	197.9609	98.488	% Recov	80.000	120.000				04/07/08
Fluoride	16984-48-8	104.9652	105.387	% Recov	80.000	120.000				04/07/08
Nitrogen in Nitrite	NO2-N	99,9855	100.589	% Recov	80.000	120.000				04/07/08
Nitrogen in Nitrate	N03-N	92.3455	102.492	% Recov	80.000	120.000				04/07/08
Phosphate (P) by IC	P04-P	197.7525	102.251	% Recov	80.000	120.000				04/07/08
Suifate	14808-79-8	388.7195	98.161	% Recov	80.000	120.000				04/07/08

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Inorganic

Department:

80	Analysis Date		04/01/08	04/01/08	04/01/08		04/01/08	04/01/08
)3/19/()3/20/(RQ						<u></u>	
Sample Date: 03/19/08 Receive Date:03/20/08	RPD Limit				20.000			
Sam _j Rece	RPD(%)				3.315			
	Upper Limit		125.000	125.000			4.000	115.000
	Lower Limit		75.000	75.000			-4.000	85.000
	Lower Units Limit		% Recov	% Recov	RPD		ng/L	% Recov
	QC Yield		92.462	89.447			n/a	99.000
	QC Found QC Yield		1.84	1.78	89.447		4 >	49.5
otom	CAS#	'H SAMPLE	57-12-5	57-12-5	57-12-5		57-12-5	57-12-5
SDG Number: WSCF20080591 Matrix: SOLID Test: Cyanide by Midi/Spectrophotom	Analyte	Lab ID: W08GR00694 BATCH QC ASSOCIATED WITH SAMPLE	Cyanide by Midi/Spectrophotom	Cyanide by Midi/Spectrophotom	Cyanide by Midi/Spectrophotom	OC	Cyanide by Midi/Spectrophotom	Cyanide by Midi/Spectrophotom
SDG Number: Matrix: SOLID Test: Cyanide b	QC Type	Lab ID: BATCH	WS	MSD	SPK-RPD	BATCH QC	BLANK	SOT

Inorganic

Department:

SDG N Matrix: Test: IC	SDG Number: WSCF20080591 Matrix: SOLID Test: ICP Metals Analysis, Grd H20 P	(20 P						Samp Recei	Sample Date: 03/19/08 Receive Date:03/20/08	80/0	
QC Type	Analyte	CAS#	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit R	RQ	Analysis Date
Lab ID: RATCH	Lab ID: W08GR00694 RATCH OF ASSOCIATED WITH SAMPLE	H SAMPI F									
MS	Silver	7440-22-4	188.2	95.533	% Recov	75.000	125.000			0	04/09/08
MS	Aluminum	7429-90-5	1951	990.355	% Recov	75.000	125.000		•	0	04/09/08
MS	Boron	7440-42-8	186.9	94.873	% Recov	75.000	125.000			0	04/09/08
MS	Copper	7440-50-8	198.016	100.516	% Recov	75.000	125.000			0	04/09/08
MS	Iron	7439-89-6	740	375.635	% Recov	75.000	125.000		•	0	04/09/08
MS	Lithium	7439-93-2	78.88	80.081	% Recov	70.000	130.000			0	04/09/08
MS	Sodium	7440-23-5	264	134.010	% Recov	75.000	125.000		•	0	04/09/08
MS	Nickel	7440-02-0	183.64	93.218	% Recov	75.000	125.000			0	04/09/08
MSD	Silver	7440-22-4	188.6	94.774	% Recov	75.000	125.000			0	04/09/08
MSD	Aluminum	7429-90-5	1284	645.226	% Recov	75.000	125.000		•	0	04/09/08
MSD	Boron	7440-42-8	189.2	95.075	% Recov	75.000	125.000			0	04/09/08
MSD	Copper	7440-50-8	198.216	99.606	% Recov	75.000	125.000			Ó	04/09/08
MSD	Iron	7439-89-6	1450	728.643	% Recov	75.000	125.000			0	04/09/08
MSD	Lithium	7439-93-2	89	89.447	% Recov	75.000	125.000			Ö	04/09/08
MSD	Sodium	7440-23-5	242	121.608	% Recov	75.000	125.000			Ó	04/09/08
MSD	Nickel	7440-02-0	190.64	95.799	% Recov	75.000	125.000			Ó	04/09/08
SPK-RPD	Silver	7440-22-4	94.774		RPD			0.798	20.000	Ŏ	04/09/08
SPK-RPD	Aluminum	7429-90-5	645.226		RPD			42.203	20.000	Ŏ	04/09/08
SPK-RPD	Boron	7440-42-8	95.075		RPD			0.213	20.000	Ŏ	04/09/08
SPK-RPD	Copper	7440-50-8	909.66		RPD			0.909	20.000	Ŏ	04/09/08
SPK-RPD	Iron	7439-89-6	728.643		RPD			63.935	20.000	Ò	04/09/08
SPK-RPD	Lithium	7439-93-2	89.447		RPD			11.050	20.000	Ò	04/09/08
SPK-RPD	Sodium	7440-23-5	121.608		RPD			9.704	20.000	Ò	04/09/08
SPK-RPD	Nickel	7440-02-0	95.799		RPD			2.731	20.000	Ŏ	04/09/08

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	WSCF AN	WSCF ANALYTICAL LABORATORY QC REPORT	ATORY	QC RE	PORT	Q	Department: Inorganic	Inorgan	ic
SDG Number: WSCF20080591 Matrix: SOLID Test: ICP Metals Analysis, Grd H20 P	0591 Grd H20 P					Sam	Sample Date: Receive Date:		
QC Tyne Analyte	# 200	OC Found OC Vield	Units	Lower	Upper Limit	RPD(%)	RPD Limit	SO S	Analysis Date

Analysis Date		04/09/08	04/09/08	04/09/08	04/09/08	04/09/08	04/09/08	04/09/08	04/09/08	04/09/08	04/09/08	04/09/08	04/09/08	04/09/08	04/09/08	04/09/08	04/09/08
RQ		n	D	D	D	D	D	⊃	n						D		
RPD Limit																	
RPD(%)																	
Upper Limit										155.000	157.000	156.000	120.000	152.000	120.000	149.000	121.000
Lower Limit										45.000	44.000	45.000	80.000	47.000	80.000	51.000	74.000
Units		ug/mL	% Recov														
QC Yield		n/a	п/а	n/a	n/a	n/a	n/a	п/а	n/a	99.406	92.446	95.652	94.380	111.418	n/a	87.381	97.032
QC Found QC Yield		<5e-3	<3e-2	<8e-3	<4e-3	< 9e-3	<4e-3	<2.7e-2	<4e-3	100.4	7636	110	64.65	14930	< 0.39928	513.8	53.95
CAS#		7440-22-4	7429-90-5	7440-42-8	7440-50-8	7439-89-6	7439-93-2	7440-23-5	7440-02-0	7440-22-4	7429-90-5	7440-42-8	7440-50-8	7439-89-6	7439-93-2	7440-23-5	7440-02-0
Analyte	н ос	Silver	Aluminum	Boron	Copper	Iron	Lithium	Sodium	Nickel	Silver	Aluminum	Boron	Copper	Iron	Lithium	Sodium	Nickel
QC Type	ВАТСН ОС	BLANK	SOT														

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Department: Inorganic

SDG N Matrix: Test: I(SDG Number: WSCF20080591 Matrix: SOLID Test: ICP-200.8 MS All possible meta	meta						Samp Rece	Sample Date: 03/19/08 Receive Date:03/20/08	/19/08 //20/08	
QC Type	Analyte	CAS#	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
	[
Lab ID: BATCH	Lab ID: W08GR00694 BATCH QC ASSOCIATED WITH SAMPLE	H SAMPLE									
MS	Arsenic	7440-38-2	186.5	93.250	% Recov	70.000	130.000				04/02/08
MS	Barium	7440-39-3	167.79	83.895	% Recov	70.000	130.000				04/02/08
MS	Beryllium	7440-41-7	188.6	94.300	% Recov	70.000	130.000				04/02/08
MS	Cadmium	7440-43-9	194.7	97.350	% Recov	70.000	130.000				04/02/08
MS	Cobalt	7440-48-4	189.88	94.940	% Recov	70.000	130.000				04/02/08
MS	Chromium	7440-47-3	193.74	96.870	% Recov	70.000	130.000				04/02/08
MS	Mercury	7439-97-6	2.08	104.000	% Recov	70.000	130.000				04/02/08
MS	Manganese	7439-96-5	183	91.500	% Recov	70.000	130.000				04/02/08
MS	Lead	7439-92-1	191.98	95.990	% Recov	70.000	130.000				04/02/08
MS	Antimony	7440-36-0	190.2	95.100	% Recov	70.000	130.000				04/02/08
MS	Selenium	7782-49-2	191.2	95.600	% Recov	70.000	130.000				04/02/08
MS	Strontium	7440-24-6	196.43	98.215	% Recov	70.000	130.000				04/02/08
MS	Thallium	7440-28-0	178.02	89.010	% Recov	70.000	130.000				04/02/08
MS	Uranium	7440-61-1	199.24	99.620	% Recov	70.000	130.000				04/02/08
MS	Vanadium	7440-62-2	184.38	92.190	% Recov	70.000	130.000				04/02/08
MS	Zinc	7440-66-6	196.14	98.070	% Recov	70.000	130.000				04/02/08
MSD	Arsenic	7440-38-2	185.7	92.850	% Recov	70.000	130.000				04/02/08
MSD	Barium	7440-39-3	166.49	83.245	% Recov	70.000	130.000				04/02/08
MSD	Beryllium	7440-41-7	187.8	93.900	% Recov	70.000	130.000				04/02/08
MSD	Cadmium	7440-43-9	193.5	96.750	% Recov	70.000	130.000			Ū	04/02/08
MSD	Cobalt	7440-48-4	193.48	96.740	% Recov	70.000	130.000			•	04/02/08
MSD	Chromium	7440-47-3	195.64	97.820	% Recov	70.000	130.000			•	04/02/08
MSD	Mercury	7439-97-6	2.2	110.000	% Recov	70.000	130.000			•	04/02/08
MSD	Manganese	7439-96-5	181.2	90.600	% Recov	70.000	130.000			Ū	04/02/08
MSD	Lead	7439-92-1	193.78	96.890	% Recov	70.000	130.000			Ū	04/02/08
MSD	Antimony	7440-36-0	193.2	96.600	% Recov	70.000	130.000			Ü	04/02/08

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Inorganic

Department:

Sample Date: 03/19/08 Receive Date:03/20/08

SDG Number: WSCF20080591 Matrix: SOLID Test: ICP-200.8 MS All possible meta

,		:		;	;	Lower	Upper		RPD	(Analysis
lyte	CAS#		omuq	QC Yield	Units	Limit	Limit	RPD(%)	Limit	8 0	Date
7782-49-2		19	191.8	95.900	% Recov	70.000	130.000				04/02/08
		195.2	53	97.615	% Recov	70.000	130.000				04/02/08
Thallium 7440-28-0 180.52		180.52		90.260	% Recov	70.000	130.000				04/02/08
Uranium 7440-61-1 200.44		200.44		100.220	% Recov	70.000	130.000				04/02/08
Vanadium 7440-62-2 189.48		189.48	_	94.740	% Recov	70.000	130.000				04/02/08
Zinc 7440-66-6 200.44		200.44		100.220	% Recov	70.000	130.000				04/02/08
Arsenic 7440-38-2 92.850		92.850	•		RPD			0.430	20.000		04/02/08
Barium 7440-39-3 83.245		83.245			RPD			0.778	20.000		04/02/08
Beryllium 7440-41-7 93.900		93.900			RPD			0.425	20.000		04/02/08
Cadmium 7440-43-9 96.750		96.750			RPD			0.618	20.000		04/02/08
Cobalt 7440-48-4 96.740		96.740			RPD			1.878	20.000		04/02/08
Chromium 7440-47-3 97.820		97.820			RPD			0.976	20.000		04/02/08
Mercury 7439-97-6 110.000		110.000			RPD			5.607	20.000		04/02/08
Manganese 7439-96-5 90.600		90.600			RPD			0.988	20.000		04/02/08
Lead 7439-92-1 96.890		96.890			RPD			0.933	20.000		04/02/08
Antimony 7440-36-0 96.600		96.600			RPD			1.565	20.000		04/02/08
Selenium 7782-49-2 95.900		92.900			RPD			0.313	20.000		04/02/08
Strontium 7440-24-6 97.615		97.615			RPD			0.613	20.000		04/02/08
Thallium 7440-28-0 90.260		90.260			RPD			1.395	20.000		04/02/08
Uranium 7440-61-1 100.220		100.220			RPD			0.600	20.000		04/02/08
Vanadium 7440-62-2 94.740		94.740			RPD			2.728	20.000		04/02/08
Zinc 7440-66-6 100.220		100.220			RPD			2.169	20.000		04/02/08
Lab ID: W08GR00781 BATCH QC ASSOCIATED WITH SAMPLE	SAMPLE										
Barium 7440-39-3 192.09	•	192.09		96.045	% Recov	70.000	130.000				04/02/08
Beryllium 7440-41-7 190.22		190.22		95.110	% Recov	70.000	130.000				04/02/08
Cadmium 7440-43-9 198.09		198.09		99.045	% Recov	70.000	130.000				04/02/08
Cobalt 7440-48-4 196.65		196.65		98.325	% Recov	70.000	130.000				04/02/08
Chromium 7440-47-3 198.27		198.27		99.135	% Recov	70.000	130.000				04/02/08

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Inorganic

Department:

Sample Date: 03/25/08 Receive Date: 03/28/08

SDG Number: WSCF20080591 Matrix: SOLID Test: ICP-200.8 MS All possible meta

20						Lower	Upper		RPD		Analysis
Type	Analyte	CAS#	QC Found (QC Yield	Units	Limit	Limit	RPD(%)	Limit	RQ	Date
MS	Manganese	7439-96-5	201.2	100.600	% Recov	70.000	130.000				04/02/08
MS	Lead	7439-92-1	196.59	98.295	% Recov	70.000	130.000				04/02/08
MS	Antimony	7440-36-0	187.7	93.850	% Recov	70.000	130.000				04/02/08
MS	Selenium	7782-49-2	195.3	97.650	% Recov	70.000	130.000				04/02/08
MS	Thallium	7440-28-0	182.05	91.025	% Recov	70.000	130.000				04/02/08
MS	Vanadium	7440-62-2	188.01	94.005	% Recov	70.000	130.000				04/02/08
MS	Zinc	7440-66-6	200.76	100.380	% Recov	70.000	130.000				04/02/08
MSD	Barium	7440-39-3	192.09	96.045	% Recov	70.000	130.000				04/02/08
MSD	Beryllium	7440-41-7	185.02	92.510	% Recov	70.000	130.000				04/02/08
MSD	Cadmium	7440-43-9	195.69	97.845	% Recov	70.000	130.000				04/02/08
MSD	Cobalt	7440-48-4	189.75	94.875	% Recov	70.000	130.000				04/02/08
MSD	Chromium	7440-47-3	191.07	95.535	% Recov	70.000	130.000				04/02/08
MSD	Manganese	7439-96-5	195.8	97.900	% Recov	70.000	130.000				04/02/08
MSD	Lead	7439-92-1	192.19	96.095	% Recov	70.000	130.000				04/02/08
MSD	Antimony	7440-36-0	183.8	91,900	% Recov	70.000	130.000				04/02/08
MSD	Selenium	7782-49-2	190.8	95,400	% Recov	70.000	130.000				04/02/08
MSD	Thallium	7440-28-0	178.15	89.075	% Recov	70.000	130.000				04/02/08
MSD	Vanadium	7440-62-2	180.11	90.055	% Recov	70.000	130.000				04/02/08
MSD	Zinc	7440-66-6	192.26	96.130	% Recov	70.000	130.000				04/02/08
SPK-RPD	Barium	7440-39-3	96.045		RPD			0.000	20.000		04/02/08
SPK-RPD	Beryllium	7440-41-7	92.510		RPD			2.772	20.000		04/02/08
SPK-RPD	Cadmium	7440-43-9	97.845		RPD			1.219	20.000		04/02/08
SPK-RPD	Cobalt	7440-48-4	94.875		RPD			3.571	20.000		04/02/08
SPK-RPD	Chromium	7440-47-3	95.535		RPD			3.699	20.000		04/02/08
SPK-RPD	Manganese	7439-96-5	97.900		RPD			2.720	20.000		04/02/08
SPK-RPD	Lead	7439-92-1	96.095		RPD			2.263	20.000		04/02/08
SPK-RPD	Antimony	7440-36-0	91.900		RPD			2.100	20.000		04/02/08
SPK-RPD	Selenium	7782-49-2	95.400		RPD			2.331	20.000		04/02/08
SPK-RPD	Thallium	7440-28-0	89.075		RPD			2.165	20.000		04/02/08
SPK-RPD	Vanadium	7440-62-2	90.055		RPD			4.292	20.000		04/02/08

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Inorganic

Department:

SDG Number: WSCF20080591 Matrix: SOLID

Matrix Test: I	Matrix: SOLID Test: ICP-200.8 MS All possible meta	neta						Samp Recei	Sample Date: 03/25/08 Receive Date:03/28/08	25/08 28/08	
8		3		;	;	Lower	Upper		RPD	(Analysis
Type	Analyte	CAS#	QC Found QC Yield	C Yield	Units	Limit	Limit	RPD(%)	Limit	RQ RQ	Date
SPK-RPD	Zinc	7440-66-6	96.130		RPD			4.325	20.000		04/02/08
ВАТСН ОС	Э Б										
BLANK	Arsenic	7440-38-2	<0.4	n/a	ng/L					ח	04/02/08
BLANK	Barium	7440-39-3	< 0.2	n/a	ng/L					כ	04/02/08
BLANK	Beryllium	7440-41-7	<5e-2	n/a	ng/L					_D	04/02/08
BLANK	Cadmium	7440-43-9	< 0.1	n/a	ng/L					_D	04/02/08
BLANK	Cobalt	7440-48-4	<5e-2	n/a	ug/L					⊃	04/02/08
BLANK	Chromium	7440-47-3	< 0.5	n/a	ng/L					⊃	04/02/08
BLANK	Mercury	7439-97-6	5e-2	0.050	ng/L						04/02/08
BLANK	Manganese	7439-96-5	<0.1	n/a	ng/L					⊃	04/02/08
BLANK	Lead	7439-92-1	<0.1	n/a	ug/L					_D	04/02/08
BLANK	Antimony	7440-36-0	< 0.3	n/a	ng/L					⊃	04/02/08
BLANK	Selenium	7782-49-2	<0.3	n/a	ng/L					⊃	04/02/08
BLANK	Strontium	7440-24-6	<0.1	n/a	ng/L					_D	04/02/08
BLANK	Thallium	7440-28-0	< 0.1	n/a	ng/L					⊃	04/02/08
BLANK	Uranium	7440-61-1	<5e-2	n/a	ng/L					D	04/02/08
BLANK	Vanadium	7440-62-2	<0.2	n/a	ng/L					D	04/02/08
BLANK	Zinc	7440-66-6	< 0.8	n/a	ng/L					_{>}	04/02/08
SOT	Arsenic	7440-38-2	128.4	97.273	% Recov	75.000	134.000				04/02/08
SOT	Barium	7440-39-3	303.4	95.110	% Recov	87.000	121.000				04/02/08
SOT	Beryllium	7440-41-7	86.73	96.905	% Recov	70.000	153.000				04/02/08
SOT	Cadmium	7440-43-9	96.89	103.699	% Recov	95.000	124.000				04/02/08
SJI	Cobalt	7440-48-4	74.92	102.490	% Recov	88.000	119.000				04/02/08
SOT	Chromium	7440-47-3	68	93.278	% Recov	77.000	125.000				04/02/08
SOT	Mercury	7439-97-6	8.61	103.986	% Recov	71.000	132.000				04/02/08
SOT	Manganese	7439-96-5	443.4	97.881	% Recov	83.000	118.000				04/02/08
SOT	Lead	7439-92-1	128.2	98.615	% Recov	92.000	123.000				04/02/08
SOT	Antimony	7440-36-0	122.8	136.142	% Recov	114.000	260.000				04/02/08
SOT	Selenium	7782-49-2	167.2	103.851	% Recov	52.000	157.000				04/02/08

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Inorganic

Department:

Sample Date: Receive Date:

SDG Number: WSCF20080591 Matrix: SOLID Test: ICP-200.8 MS All possible meta

20					_	Lower	Upper		RPD		Analysis
Type	Analyte	CAS#	QC Found	QC Yield	Units Limit	Limit	Limit	RPD(%)	Limit	RQ	Date
SOT	Strontium	7440-24-6	51.54	94.743	% Recov	68.000	123.000				04/02/08
rcs	LCS Thallium	7440-28-0	122.4	92.030	% Recov	92.000	123.000				04/02/08
SOT	LCS Uranium	7440-61-1	373.4	93.350	% Recov	81.000	125.000				04/02/08
SOT	LCS Vanadium	7440-62-2	76.61	92.301	% Recov	81.000	122.000				04/02/08
SOT	Zinc	7440-66-6	191.9	108.418	% Recov	85.000	130.000				04/02/08

ANALYTICAL COMMENT REPORT

WSCF20080591 Inorganic	
Group #: Department:	
	Comment
	Test
Steve Trent F08-070	Lab Area
Attention: Project Number	Sample # Client ID

VALGROUP

icr-wis: werdung prep blank above the MDL: werdung hot not detected. No flag	10 10 10 10 10 10 10 10 10 10 10 10 10 1
Organics: All results are corrected for moisture and	
reported on a dry weight basis. "J" flagged compounds are	unds are
estimates because the concentration is too low for accurate	accurate
quantitation. cgc	

Check and high standards used to ensure aluminum and iron Aluminum, iron, and sodium sample results exceed spiking level by a factor of 4 (spike recoveries are not valid). linearity because sample results are greater than the ICP-AES: No lithium present in the LCS. calibration standard.

lithium values. Spike recoveries are 98.5% for MS and 98.9% have no detectable peaks. Lithium does and calcium is the interferences that make them negative. Silver and boron interferent. A correlation was done to get estimated Silver, boron, and lithium have correction equation for MSD.

IC Cation - MS/MSD recoveries out of limits for sample W08GR00694; Data N-flagged. DTS

> VALGROUP - Group Validation LOGSAMP - Login for Sample Lab Areas:

VALTEST - Test Validation LOGTEST - Login for Tests

TESTDATA - Test Data Entry

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wgppc/5.2 Report#: WSCF20080591

Report Date: 8-may-2008

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ANALYTICAL RESULTS REPORT WSCF

	Attention: Steve Tr SAF Number:F08-070 Sample # W08GR	Steve Trent :F08-070 W08GR00694									010	Group #: Department: Sampled:	WSCF20080591 Organic 03/19/08
	Client ID:	BITN41					Matrix:		SOIL		×	Received:	03/20/08
	Test Performed	CAS#	w SCF Method	RQ	Re	esult	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
	Alcohols, Glycols - 8015 Prep Alcohols, Glycols - 8015	8015 Prep											04/02/08
	Diethyl ether	60-29-7	Organics	⊃	٧	5.00e+03	ug/kg			1.00	5.0e+03		04/02/08
ш	Ethylene giycol	107-21-1	Organics	>	٧	5.00e +03	ug/kg			1.00	5.0e+03		04/02/08
	NWTPH-D TPH Diesel Range (Wa) Prep NWTPH-D TPH Diesel Range (Wa)	sel Range (Wa) I					1						03/31/08
	Total Pet. Hydrocarbons Diesel	iesel TPHDIESEL	L LA-523-493	b	V	3.10e+03	ug/kg			1.00	3.1e + 03		04/09/08
_	Kerosene	·	TPHKEROSENE LA-523-493	o	٧	3.10e+03	ug/kg			1.00	3.1e + 03		04/09/08
-1 41	SW-846 8270C Semi-Vols Prep SW-846 8270C Semi-Vols	i-Vols Prep											04/01/08
7	4-Nitrophenol	100-02-7	LA-523-456	D	٧	340	ug/kg			1.00	3.4e + 02		04/08/08
	1,4-Dichlorobenzene	106-46-7	LA-523-456	D	٧	260	ug/kg			1.00	2.6e+02		04/08/08
	Phenol	108-95-2	LA-523-456	Þ	٧	150	ug/kg			1.00	1.5e+02		04/08/08
-	1,2,4-Trichlorobenzene	120-82-1	LA-523-456	o	٧	150	ug/kg			1.00	1.5e+02		04/08/08
	2,4-Dinitrotoluene	121-14-2	LA-523-456	⊃	٧	150	ug/kg			1.00	1.5e+02		04/08/08
-	Pyrene	129-00-0	LA-523-456	o	٧	150	ug/kg			1.00	1.5e+02		04/08/08
7	4-Chioro-3-methyiphenol	59-50-7	LA-523-456	⊃	٧	150	ug/kg			1.00	1.5e + 02		04/08/08
_	N-Nitrosodi-n-dipropylamine	le 621-64-7	LA-523-456	n	٧	150	ug/kg			1.00	1.5e+02		04/08/08
•	Acenaphthene	83-32-9	LA-523-456	b	٧	150	ug/kg			1.00	1.5e+02		04/08/08
-	Pentachlorophenol	87-86-5	LA-523-456	o	٧	410	ng/kg			1.00	4.1e+02		04/08/08
.,	2-Chlorophenol	95-57-8	LA-523-456	n	٧	150	ug/kg			1.00	1.5e + 02		04/08/08
7	4-Nitroaniline	100-01-6	LA-523-456	o	٧	280	ug/kg			1.00	2.8e+02		04/08/08
7	4-Bromophenylphenyl ether	er 101-55-3	LA-523-456	D	٧	150	ug/kg			1.00	1.5e + 02		04/08/08
.,	2,4-Dimethylphenol	105-67-9	LA-523-456	⊃	٧	230	ug/kg			1.00	2.3e + 02		04/08/08
4	4-Chloroaniline	106-47-8	LA-523-456)	V	290	ug/kg			1.00	2.9e+02		04/08/08
	MDL = Minimum Detection Limit	etection Limit	B - The analyte < the RDL but > =	the RDL	but > =	the IDL/MDL (inorg))L (inorg)		D - Analyte w	D - Analyte was identified at a secondary dilution factor	secondary dilu	rtion factor	
	RQ=Result Qualifier	15	D - Analyte was identified at a secondary dilution factor(inorg)	dentified	at a seco	indary diluti	on factor(inorg	6	E - Analyte is	E - Analyte is an estimate, has potentially larger errors(inorg)	potentially larg	ger errors(inorg)	
•	TP Err = Total Propagated Error	agated Error	J - Analyte < lowest calibration but	est calibr	ation but	t > = MDL.(org)	(org)		N - Spike sam	N - Spike sample recovery is outside control limits.(inorg)	utside control I	imits.(inorg)	
33	DF=Dilution Factor)	U - Analyzed for but not detected above limiting criteria(inorg)	ut not de	tected a	bove limitin	g criteria(inorg		U - Analyzed	U - Analyzed for but not detected above limiting criteria	ted above limit	ing criteria.	

U - Analyzed for but not detected above limiting criteria(inorg) * - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols TP Err=Total Propagated Error DF=Dilution Factor Report WGPP/ver. 5.2

Groundwater Remediation Program 33 of 84

ANALYTICAL RESULTS REPORT

Group #: WSCF20080591 Department: Organic Sampled: 03/19/08 Received: 03/20/08	nit DF MDL PQL	1.00 1.5e+02 04/08/08	1.00 1.5e + 02 04/08/08	1.00 1.5e+02 04/08/08	1.00 1.7e+02 04/08/08	1.00 1.5e+02 04/08/08	1.00 1.5e+02 04/08/08	1.00 3.3e+02 04/08/08	1.00 3.4e+02 04/08/08	1.00 2.0e + 02 04/08/08	1.00 1.5e+02 04/08/08	1.00 2.1e+02 04/08/08	1.00 1.5e + 02 04/08/08	1.00 1.5e+02 04/08/08	1.00 2.3e+02 04/08/08	1.00 6.3e+02 04/08/08	1,00 3.4e+02 04/08/08	1.00 3.4e+02 04/08/08	1.00 2.8e + 02 04/08/08	1.00 1.5e+02 04/08/08	1.00 1.5e+02 04/08/08	1.00 1.5e+02 04/08/08	D - Analyte was identified at a secondary dijution factor	E - Analyte is an estimate, has potentially larger errors(inorg)	N - Spike sample recovery is outside control limits. (inorg)				
Matrix: S) Err	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	he IDI /MDI (inora)	n factor(inord)	org)
		ĺ	_	0	0	_											_	0	_							0	QW.	lilutio	> = MDL.(org)
	Result	< 150	< 150	< 150	< 150	< 150	< 150	< 150	< 170	< 150	< 150	< 330	< 340	< 200	< 150	< 210	< 150	< 150	< 230	< 630	< 340	< 340	< 280	< 150	< 150	< 150	- 1 ←	a secondary o	ion but > =
	RQ	> n	v n	У	· v	v n) \	. v	· v	· v	У	v 0	v n	v n	· v	v n	· v	· v	v n	v 	v n	v n	v 0	· v	v 	v	- 1 ←	identified at a secondary of	west calibration but > =
RENT	thod RQ	LA-523-456 U < 150	V	v	V	٧	v	· ·	V	٧	٧	٧	٧	٧	v	V	v	· v	٧	٧	٧	٧	V	v	V	LA-523-456 U < 15(- 1 ←	- Analyte was identified at a secondary	- Analyte < lowest calibration but > ==
Attention: Steve Trent SAF Number:F08-070 Sample # W08GR00694 Client ID: B1TN41 TRENT	RQ	> n	v n	У	· v	v n) \	. v	· v	· v	У	v 0	v n	v n	· v	v n	· v	· v	v n	v 	v n	v n	v 0	· v	v 	v	MDI.=Minimum Detection Limit B. The analyte < the RDI hut > = the IDI	D - Analyte was identified at a secon	TP Err=Total Propagated Error J-Analyte < lowest calibration but >=

U - Analyzed for but not detected above limiting criteria. U - Analyzed for but not detected above limiting criteria(inorg)

DF = Dilution Factor

Indicates results that have NOT been validat

Report WGPP/ver. 5.2

Groundwater Remediation Program

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 $^{^{}ullet}$ - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols $Report\ WGPP/ver.\ 5.2$

E - Analyte is an estimate, has potentially larger errors(inorg) N - Spike sample recovery is outside control limits.(inorg) U - Analyzed for but not detected above limiting criteria.

ANALYTICAL RESULTS REPORT WSCF

Group #: WSCF20080591 Department: Organic Sampled: 03/19/08 Received: 03/20/08	PQL Analysis Date	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	tion factor
	MDL	1.5e+02	1.5e + 02	2.1e+02	1.5e +02	1.5e+02	1.5e+02	1.7e+02	1.5e +02	1.5e+02	1.5e + 02	1.5e+02	1.7e+02	1.5e+02	1.5e + 02	1.5e + 02	3.4e + 02	1.5e + 02	2.3e + 02	1.5e + 02	1.5e+02	1.9e + 02	1.5e + 02	2.6e + 02	1.5e + 02	1.5e+02	a secondary dilu
	DF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	D - Analyte was identified at a secondary dilution factor
TIOS	Unit																										D - Analyte
Matrix:	TP Err																										
W	Unit	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	the IDL/MDL (inorg)																
	Result	< 150	< 150	< 210	470	< 150	< 150	< 170	< 150	< 150	< 150	< 150	< 170	< 150	< 150	< 150	< 340	< 150	< 230	150	< 150	< 190	< 150	< 260	< 150	< 150	= the IDL/N
	RQ	,	· 	· 			· 		· 				· 	· 	· 	· 	· 	· 	· 	· 	· 	· 			· 		RDL but >
TRENT	w SC F Method	LA-523-456	LA-523-456	LA-523-456	LA-523-456	LA-523-456	LA-523-456	LA-523-456	LA-523-456	LA-523-456	B - The analyte < the RDL but > = the IDL/MDL (inorg)																
Attention: Steve Trent SAF Number:F08-070 Sample # W08GR00694 Client ID: B1TN41	CAS#	77-47-4	78-59-1	84-66-2	84-74-2	85-01-8	85-68-7	86-30-6	86-73-7	86-74-8	87-68-3	88-74-4	88-75-5	91-20-3	91-57-6	91-58-7	91-94-1	95-48-7	95-50-1	95-95-4	98-95-3	99-09-2	65794-96-9	67-72-1	88-06-2	126-73-8	MDL = Minimum Detection Limit B
																		2-Methylphenol (cresol, o-)					3 & 4 Methylphenol Total				MDL = Minimum Detectio

U - Analyzed for but not detected above limiting criteria(inorg) J - Analyte < lowest calibration but > = MDL.(org) TP Err = Total Propagated Error DF=Dilution Factor

^{* -} Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols Report WGPP/ver. 5.2

ANALYTICAL RESULTS REPORT WSCF

Steve Trent	r:F08-070	
Attention:	SAF Number:F08-070	

TRENT W08GR00694 B1TN41 Sample # Client ID:

WSCF

Method CAS#

Test Performed

Matrix:

SOIL

03/20/08

WSCF20080591

Organic 03/19/08 Group #:
Department: (
Sampled: (
Received: (

POL

Analysis Date

MDL

DF

Unit

TP Err

Unit

Result

RO

E - Analyte is an estimate, has potentially larger errors(inorg) D - Analyte was identified at a secondary dilution factor

N - Spike sample recovery is outside control limits.(inorg)

U - Analyzed for but not detected above limiting criteria.

U - Analyzed for but not detected above limiting criteria(inorg) + - Indicates more than six qualifier symbols

D - Analyte was identified at a secondary dilution factor(inorg)

J - Analyte < lowest calibration but > = MDL.(org)

B - The analyte < the RDL but > = the iDL/MDL (inorg)

MDL = Minimum Detection Limit

RQ=Result Qualifier

TP Err=Total Propagated Error

* - Indicates results that have NOT been validated; Report WGPP/ver. 5.2

Groundwater Remediation Program

DF=Dilution Factor 36 of 84

U - Analyzed for but not detected above limiting criteria.

ANALYTICAL RESULTS REPORT WSCF

Attention: S	Steve Trent										Group #:	WSCF20080591
Sample # W08GR(Client ID: B1TNP2	rus-u/u W08GR00695 B1TNP2					Matrix:		SOIL		- - - - - - - - - -	Department: Sampled: Received:	Organic 03/19/08 03/20/08
Test Performed	CAS#	WSCF Method	RO	Result		Unit	TP Err	Unit	DF	MDL	POL	Analysis Date
Alcohols, Glycols - 8015 Prep Alcohols, Glycols - 8015	15 Prep		,								,	04/02/08
Diethyl ether	60-29-7	Organics)	< 5.0	5.00e + 03	ug/kg			1.00	5.0e+03		04/02/08
Ethylene glycol	107-21-1	Organics	J	< 5.0	5.00e + 03	ug/kg			1.00	5.0e + 03		04/02/08
NWTPH-D TPH Diesel Range (Wa) Prep NWTPH-D TPH Diesel Range (Wa)	el Range (Wa) I el Range (Wa)	_										03/31/08
Total Pet. Hydrocarbons Diesel	sel TPHDIESEL	L LA-523-493	⊃	< 3.1	3.10e +03	ug/kg			1.00	3.1e + 03		04/09/08
Kerosene	TPHKEROS	TPHKEROSENE LA-523-493	D	< 3.1	< 3.10e +03	ug/kg			1.00	3.1e + 03		04/09/08
SW-846 8270C Semi-Vols Prep SW-846 8270C Semi-Vols	Vols Prep Vols											04/01/08
4-Nitrophenol	100-02-7	LA-523-456	D	٧	340	ug/kg			1.00	3.4e + 02		04/08/08
1,4-Dichlorobenzene	106-46-7	LA-523-456)	٧	260	ug/kg			1.00	2.6e+02		04/08/08
Phenol	108-95-2	LA-523-456	⊃	٧	150	ug/kg			1.00	1.5e + 02		04/08/08
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	D	٧	150	ug/kg			1.00	1.5e+02		04/08/08
2,4-Dinitrotoluene	121-14-2	LA-523-456	⊃	٧	150	ug/kg			1.00	1.5e+02		04/08/08
Pyrene	129-00-0	LA-523-456	⊃	٧	150	ug/kg			1.00	1.5e + 02		04/08/08
4-Chloro-3-methylphenol	59-50-7	LA-523-456	⊃	٧	150	ug/kg			1.00	1.5e + 02		04/08/08
N-Nitrosodi-n-dipropylamine	621-64-7	LA-523-456	D	٧	150	ug/kg			1.00	1.5e+02		04/08/08
Acenaphthene	83-32-9	LA-523-456	D	٧	150	ug/kg			1.00	1.5e+02		04/08/08
Pentachlorophenol	87-86-5	LA-523-456	⊃	٧	410	ug/kg			1.00	4.1e + 02		04/08/08
2-Chlorophenol	95-57-8	LA-523-456	⊃	٧	150	ug/kg			1.00	1.5e+02		04/08/08
4-Nitroaniline	100-01-6	LA-523-456	n	٧	290	ug/kg			1.00	2.9e+02		04/08/08
4-Bromophenylphenyl ether	101-55-3	LA-523-456	D	٧	150	ug/kg			1.00	1.5e + 02		04/08/08
2,4-Dimethylphenol	105-67-9	LA-523-456	⊃	٧	230	ug/kg			1.00	2.3e + 02		04/08/08
4-Chloroaniline	106-47-8	LA-523-456	D .	٧	290	ug/kg			1.00	2.9e+02		04/08/08
MDL = Minimum Detection Limit	ection Limit	B - The analyte < the RDL but > =	the RDL bu		the IDL/MDL (inorg)	(inorg)		D - Analyte was	D - Analyte was identified at a secondary dilution factor	econdary dilu	Ition factor	
RQ=Result Qualifier		D - Analyte was identified at a secondary dilution factor(inorg)	entified at	seconds	ary dilution	factor(inorg)		E - Analyte is a	E - Analyte is an estimate, has potentially larger errors(inorg)	otentially lar	ger errors(inorg)	
TP Err=Total Propagated Error	gated Error	J - Analyte < lowest calibration but	st calibrati	> put >	> = MDL.(org)	(Bı		N - Spike sampl	N - Spike sample recovery is outside control limits. (inorg)	side control I	imits.(inorg)	
						ò					,	

U - Analyzed for but not detected above limiting criteria(inorg) DF=Dilution Factor
Lindicates results that have have b
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Groundwater Remediation

[•] Indicates results that have NOT been validated; + Indicates more than six qualifier symbols Report WGPP/ver, 5.2

ANALYTICAL RESULTS REPORT WSCF

WSCF20080591 Organic 03/19/08 03/20/08	Analysis Date	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08
Group #: Department: Sampled: Received:	PQL																									
50 0000	MDL	1.5e+02	1.5e + 02	1.5e +02	1.5e + 02	1.5e+02	1.5e+02	1.5e+02	1.8e+02	1.5e+02	1.5e+02	3.3e + 02	3.4e + 02	2.16 + 02	1.5e + 02	2.1e + 02	1.5e+02	1.5e +02	2.3e + 02	6.4e + 02	3.4e+02	3.4e+02	2.8e +02	1.5e + 02	1.5e + 02	1.5e + 02
	DF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
SOIL	Unit																									
	TP Err																									
Matrix:	Unit	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
	_																									
	Result	< 150	< 150	< 150	< 150	< 150	< 150	< 150	< 180	< 150	< 150	< 330	< 340	< 210	< 150	< 210	< 150	< 150	< 230	< 640	< 340	< 340	< 280	< 150	< 150	< 150
	esult		U < 150	U < 150	U < 150	U < 150	U < 150	U < 150	U < 180		U < 150											U < 340		U < 150	U < 150	U < 150
RENT	thod RQ Result	< 150	v	LA-523-456 U < 150	LA-523-456 U < 180		LA-523-456 U < 150											LA-523-456 U < 340		LA-523-456 U < 150	LA-523-456 U < 150	V				
Attention: Steve Trent SAF Number:F08-070 Sample # W08GR00695 Client ID: B1TNP2 TRENT	thod RQ Result	U < 150	U ^) \	· v	v) \) 	· v	v n	· v	v n	v _	v n	· v	v n	v 0	v n	v n	v n	v 	v n	v n	v П	· v	v D

E - Analyte is an estimate, has potentially larger errors(inorg) D - Analyte was identified at a secondary dilution factor D - Analyte was identified at a secondary dilution factor(inorg) U - Analyzed for but not detected above limiting criteria(inorg) B - The analyte < the RDL but > = the IDL/MDL (inorg) J - Analyte < lowest calibration but $> \approx$ MDL.(org) MDL = Minimum Detection Limit TP Err = Total Propagated Error RQ=Result Qualifier DF=Dilution Factor

N - Spike sample recovery is outside control limits. (inorg)

U - Analyzed for but not detected above limiting criteria.

^{* -} Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 5.2

WSCF

ANALYTICAL RESULTS REPORT

1-5-7-6 LA-523-456 0 < 150
LA-523-456 U < 150
LA-523-456 U < 150 ug/kg 1.00 1.5e+02 LA-523-456 U < 150 ug/kg 1.00 1.5e+02 LA-523-456 U < 190 ug/kg 1.00 1.9e+02 LA-523-456 U < 150 ug/kg 1.00 1.5e+02 LA-523-456 U < 260 ug/kg 1.00 2.6e+02 LA-523-456 U < 150 ug/kg 1.00 1.5e+02 LA-523-456 U < 150 ug/kg 1.00 1.5e+02
LA-523-456 U < 190 ug/kg 1.00 1.9e+02 6-9 LA-523-456 U < 150 ug/kg 1.00 1.5e+02 LA-523-456 U < 260 ug/kg 1.00 2.6e+02 LA-523-456 U < 150 ug/kg 1.00 1.5e+02 8 LA-523-456 U < 150 ug/kg 1.00 1.5e+02
16-9 LA-523-456 U < 150
LA-523-456 U < 150 ug/kg 1.00 1.5e+02 8 LA-523-456 U < 150 ug/kg 1.00 1.5e+02
LA-523-456 U < 150 ug/kg 1.00 1.5e+02

N - Spike sample recovery is outside control limits. (inorg) U - Analyzed for but not detected above limiting criteria. D - Analyte was identified at a secondary dilution factor(inorg) U - Analyzed for but not detected above limiting criteria(inorg) J - Analyte < lowest calibration but > = MDL.(org) TP Err = Total Propagated Error DF=Dilution Factor

39 of 84

^{+ -} Indicates more than six qualifier symbols * - Indicates results that have NOT been validated; Report WGPP/ver. 5.2

Groundwater Remediation Program

ANALYTICAL RESULTS REPORT WSCF

Attention: Steve Trent	E09 070
Attention:	CAE Mumbo

Sample # W08GR00695 Client ID: B1TNP2

TRENT WSCF

Method CAS#

Test Performed

Matrix:

SOIL

Group #: WSCF2008
Department: Organic
Sampled: 03/19/08
Received: 03/20/08

WSCF20080591

Analysis Date POL

MDL

DF

Unit

TP Err

Unit

Result

R0

MDL = Minimum Detection Limit	B - The analyte
RQ=Result Qualifier	D - Analyte was
TP Err=Total Pronagated Error	1 - Analyte / lo

• - Indicates results that have NOT been validated; Report WGPP/ver. 5.2

< the RDL but > = the iDL/MDL (inorg)

is identified at a secondary dilution factor(inorg) J - Analyte < lowest calibration but > = MDL.(org)

U - Analyzed for but not detected above limiting criteria(inorg) + - Indicates more than six qualifier symbols

E - Analyte is an estimate, has potentially larger errors(inorg) D - Analyte was identified at a secondary dilution factor

N - Spike sample recovery is outside control limits.(inorg)

U - Analyzed for but not detected above limiting criteria.

Groundwater Remediation Program DF=Dilution Factor 40 of 84

WSCF

ANALYTICAL RESULTS REPORT

	Attention: Steve Tr SAF Number:F08-070	Steve Trent r:F08-070									G	Group #: Department:	WSCF20080591 Organic	í
	Sample # Client ID:	W08GR00696 B1TN43					Matrix:		SOIL		Sal Re	Sampled: Received:	03/19/08 03/20/08	
	Test Performed	CAS#	wSCF # Method	RQ	Res	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date	
	VOA Ground Water Protection	er Protection												1
	1,1-Dichloroethene	75-35-4	LA-523-455	D	٧	1.10	ug/kg			1.00	1:1		03/26/08	
	Trichloroethene	79-01-6	LA-523-455	>	٧	1.10	ug/kg			1.00	1.1		03/26/08	
	Benzene	71-43-2	LA-523-455)	٧	1.10	ug/kg			1.00	1.1		03/26/08	
	Toluene	108-88-3	3 LA-523-455	D	٧	1.10	ug/kg			1.00	1.1		03/26/08	
	Chlorobenzene	108-90-7	7 LA-523-455	>	٧	1.10	ug/kg			1.00	1.1		03/26/08	
	1,1-Dichloroethane	75-34-3	LA-523-455	o	٧	1.10	ug/kg			1.00	1:1		03/26/08	
	Ethylbenzene	100-41-4	4 LA-523-455	>	٧	1.10	ug/kg			1.00	1.1		03/26/08	
	Styrene	100-42-5	5 LA-523-455	⊃	٧	1.10	ug/kg			1.00	1.1		03/26/08	
	cis-1,3-Dichloropropene	10061-01-5	1-5 LA-523-455	>	٧	1.10	ug/kg			1.00	1.1		03/26/08	
	trans-1,3-Dichloropropene	e 10061-02-6	12-6 LA-523-455	o	٧	1.10	ug/kg			1.00	1.1		03/26/08	
	1,2-Dichloroethane	107-06-2	2 LA-523-455	<u>م</u>	٧	1.10	ug/kg			1.00	1.1		03/26/08	
	4-Methyl-2-Pentanone	108-10-1	1 LA-523-455	>	٧	1.10	ug/kg			1.00	1.		03/26/08	
	Dibromochloromethane	124-48-1	1 LA-523-455	⊃	٧	1.10	ug/kg			1.00	1.1		03/26/08	
	Tetrachloroethene	127-18-4	4 LA-523-455	o	٧	1.10	ug/kg			1.00	1.1		03/26/08	
	Xylenes (total)	1330-20-7	-7 LA-523-455	>	٧	1.10	ug/kg			1.00	1:1		03/26/08	
	1,2-Dichloroethene(Total)	540-59-0	0 LA-523-455	n	٧	1.10	ug/kg			1.00	1:1		03/26/08	
	Carbon tetrachloride	56-23-5	LA-523-455	D	٧	1.10	ug/kg			1.00	1.1		03/26/08	
	2-Hexanone	591-78-6	6 LA-523-455	⊃	٧	1.10	ug/kg			1.00	1:1		03/26/08	
	Acetone	67-64-1	LA-523-455	n	٧	1.10	ug/kg			1.00	1.1		03/26/08	
	Chloroform	67-66-3	LA-523-455	D	٧	1.10	ug/kg			1.00	1.1		03/26/08	
	1,1,1-Trichloroethane	71-55-6	LA-523-455	n	٧	1.10	ug/kg			1.00	1:1		03/26/08	
	Bromomethane	74-83-9	LA-523-455	D	٧	1.10	ug/kg			1.00	1.1		03/26/08	
	Chloromethane	74-87-3	LA-523-455	⊃	٧	1.10	ug/kg			1.00	1.1		03/26/08	
	Chloroethane	75-00-3	LA-523-455	n	٧	1.10	ug/kg			1.00	1.1		03/26/08	
	MDL = Minimum Detection Limit	etection Limit	B · The analyte < the RDL but > = th	the RDL b	\ t	he IDL/MDL (inorg)	JL (inorg)		D - Analyte w	D - Analyte was identified at a secondary dilution factor	secondary dilutio	n factor		
	RQ=Result Qualifier	ier	D - Analyte was identified at a secondary dilution factor(inorg)	dentified at	a secon	dary dilut	ion factor(inorg)		E - Analyte is	E - Analyte is an estimate, has potentially larger errors(inorg)	ootentially larger	errors(inorg)		
	TP Err=Total Propagated Error	pagated Error	J - Analyte < lowest calibration but > = MDL.(org)	est calibrat	ion but	> = MDL	(org)		N - Spike san	N - Spike sample recovery is outside control limits.(inorg)	tside control limi	ts.(inorg)		
4	DF=Dilution Factor	ī	U - Analyzed for but not detected above limiting criteria(inorg)	out not dete	cted abc	ve limitir	g criteria(inorg)		U - Analyzed	U - Analyzed for but not detected above limiting criteria	ed above limiting	criteria.		
1														

Page 10

ANALYTICAL RESULTS REPORT WSCF

Attention: Steve Tre SAF Number:F08-070 Sample # W08GRC Client ID: B1TN43	ent 00696	TRENT			W	Matrix: SC	SOIL		Gr Sa Re	Group #: Department: Sampled: Received:	WSCF20080591 Organic 03/19/08 03/20/08
Test Performed	CAS#	w SCF Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Vinyl chloride	75-01-4	LA-523-455	n	> 1.10	ug/kg			1.00	1:1		03/26/08
Methylenechloride	75-09-2	LA-523-455	_D	< 1.10	ug/kg			1.00	1.1		03/26/08
Carbon disulfide	75-15-0	LA-523-455	ס	< 1.10	ug/kg			1.00	1.1		03/26/08
Bromoform	75-25-2	LA-523-455	n	< 1.10	ug/kg			1.00	1.1		03/26/08
Bromodichloromethane	75-27-4	LA-523-455	ס	< 1.10	ug/kg			1.00	1.1		03/26/08
1,2-Dichloropropane	78-87-5	LA-523-455	ם	< 1.10	ug/kg			1.00	1.1		03/26/08
2-Butanone	78-93-3	LA-523-455	D	< 1.10	ug/kg			1.00	1.1		03/26/08
1,1,2-Trichloroethane	2-00-62	LA-523-455	n	< 1.10	ug/kg			1.00	1.1		03/26/08
1,1,2,2-Tetrachloroethane	ne 79-34-5	LA-523-455	ם	< 1.10	ug/kg			1.00	1.1		03/26/08
1-Butanol	71-36-3	LA-523-455	D	> 110	ug/kg			1.00	1.1e + 02		03/26/08
Trichloromonofluoromethane	15-69-4	LA-523-455	ם	< 1.10	ug/kg			1.00	1.		03/26/08
trans-1,2-Dichloroethylene	ne 156-60-5	LA-523-455	ם	< 1.10	ug/kg			1.00	1.1		03/26/08
cis-1,2-Dichloroethylene	156-59-2	LA-523-455	n	< 1.10	ug/kg			1.00	1.		03/26/08

MDL = Minimum Detection Limit	MDL = Minimum Detection Limit B - The analyte $<$ the RDL but $>$ = the IDL/MDL (inorg)
RQ=Result Qualifier	D - Analyte was identified at a secondary dilution factor(inorg)
TP Err=Total Propagated Error	J - Analyte < lowest calibration but > = MDL.(org)
DF = Dilution Factor	U - Analyzed for but not detected above limiting criteria(inorg)

E - Analyte is an estimate, has potentially larger errors(inorg) N - Spike sample recovery is outside control limits. (inorg)

D - Analyte was identified at a secondary dilution factor

U - Analyzed for but not detected above limiting criteria.

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Tr SAF Number:F08-070 Sample # W08GR	Steve Trent er:F08-070 W08GR00697	7									Group #: Department: Sampled:	WSCF20080591 Organic 03/19/08
Client ID:	B1TN39	TRENT				Matrix:		SOIL			Received:	03/20/08
Test Performed	CAS#		RQ	Res	esult	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
VOA Ground Water Protection	er Protection											
1,1-Dichloroethene	75-35-4	LA-523-455	n	٧	1.10	ug/kg			1.00	1.1		03/26/08
Trichloroethene	79-01-6	LA-523-455	D	٧	1.10	ug/kg			1.00	Ξ.		03/26/08
Benzene	71-43-2	LA-523-455	⊃	٧	1.10	ug/kg			1.00	1.1		03/26/08
Toluene	108-88-3	3 LA-523-455)	٧	1.10	ug/kg			1.00	1.1		03/26/08
Chlorobenzene	108-90-7	, LA-523-455)	٧	1.10	ug/kg			1.00	1.1		03/26/08
1,1-Dichloroethane	75-34-3	LA-523-455)	٧	1.10	ug/kg			1.00	1.1		03/26/08
Ethylbenzene	100-41-4	LA-523-455	n	٧	1.10	ug/kg			1.00	1.1		03/26/08
Styrene	100-42-5	i LA-523-455)	٧	1.10	ug/kg			1.00	1.1		03/26/08
cis-1,3-Dichloropropene	10061-01-5	1-5 LA-523-455)	٧	1.10	ug/kg			1.00	1.1		03/26/08
trans-1,3-Dichloropropene	ne 10061-02-6	2-6 LA-523-455	D	٧	1.10	ug/kg			1.00	1.1		03/26/08
1,2-Dichloroethane	107-06-2	LA-523-455)	٧	1.10	ug/kg			1.00	1.1		03/26/08
4-Methyl-2-Pentanone	108-10-1	LA-523-455	D	٧	1.10	ug/kg			1.00	1.1		03/26/08
Dibromochloromethane	124-48-1	LA-523-455)	٧	1.10	ug/kg			1.00	1:		03/26/08
Tetrachloroethene	127-18-4	LA-523-455	⊃	٧	1.10	ug/kg			1.00	1.1		03/26/08
Xylenes (total)	1330-20-7	.7 LA-523-455)	٧	1.10	ug/kg			1.00	1.1		03/26/08
1,2-Dichloroethene(Total)	1) 540-59-0	LA-523-455	D	٧	1.10	ug/kg			1.00	- -		03/26/08
Carbon tetrachforide	56-23-5	LA-523-455	D	٧	1.10	ug/kg			1.00	Ξ:		03/26/08
2-Hexanone	591-78-6	LA-523-455	D	٧	1.10	ug/kg			1.00	1.1		03/26/08
Acetone	67-64-1	LA-523-455	D	٧	1.10	ug/kg			1.00	1.1		03/26/08
Chloroform	67-66-3	LA-523-455	D	٧	1.10	ug/kg			1.00	1.1		03/26/08
1,1,1-Trichloroethane	71-55-6	LA-523-455	D	٧	1.10	ug/kg			1.00	- -		03/26/08
Bromomethane	74-83-9	LA-523-455	D	٧	1.10	ug/kg			1.00	1.		03/26/08
Chloromethane	74-87-3	LA-523-455	D	٧	1.10	ug/kg			1.00	1.1		03/26/08
Chloroethane	75-00-3	LA-523-455	D	٧	1.10	ug/kg			1.00	-:		03/26/08
MDI = Minimum Detection Limit	Detection I imit	The state of the s	1000		A POLICE	1 (5000)		ot local	Andrew identification of a position of a position of the second of the s	100000000000000000000000000000000000000	30,000	
		- Ille allaryte	ייים איטר פווי	1	. יים יים יים יים יים יים יים יים יים יי	OF (III)		D - Alialyte wa	e p ne maillinea et e s	ecolidal y uni	יייייייייייייייייייייייייייייייייייייי	
KQ= Kesuit Qualifier	ner	D - Analyte was identified at a secondary dilution factor(inorg)	entified at a	secon	dary dilut.	ion factor(inorg)		E - Analyte is a	E - Analyte is an estimate, has potentially larger errors(inorg)	otentially lar	ger errors(inorg)	
TP Err=Total Propagated Error	pagated Error	J - Analyte < lowest calibration but > = MDL.(org)	st calibration	on but	> = MDL	.(org)		N - Spike samp	N - Spike sample recovery is outside control limits.(inorg)	side control	limits.(inorg)	

	MDL = Minimum Detection Limit B	B - The analyte < the RDL but > = the IDL/MDL (inorg)	 D - Analyte was identified at a secondary dilution factor
	RQ=Result Qualifier	D - Analyte was identified at a secondary dilution factor(inorg)	E - Analyte is an estimate, has potentially larger errors(inor
	TP Err=Total Propagated Error	J - Analyte < lowest calibration but > ≈ MDL.(org)	N - Spike sample recovery is outside control limits (inorg)
4:	DF=Dilution Factor	U - Analyzed for but not detected above limiting criteria(inorg)	U - Analyzed for but not detected above limiting criteria.
3	* - Indicates results that have NOT been validated;	ited; + - Indicates more than six qualifier symbols	
of	Report WGPP/ver. 5.2		
8	Groundwater Remediation Program		
4			

ANALYTICAL RESULTS REPORT WSCF

WSCF20080591 Organic 03/19/08	03/20/08	Analysis Date	03/26/08	03/26/08	03/26/08	03/26/08	03/26/08	03/26/08	03/26/08	03/26/08	03/26/08	03/26/08	03/26/08	03/26/08	03/26/08
Group #: Department: Sampled:	Received:	PQL													
S C S	X.	MDL	1.	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1e + 02	1.1	1.1	7
		DF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	SOIL	Unit													
	Matrix: S	TP Err													
	Ma	Unit	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ıg/kg	ug/kg
		n	'n	ng	Вn	Вn	/gn	Вn	ň	δn	бn	ng,	gu	Вn	ďη
		Result U	< 1.10 ug/	< 1.10 ug	< 1.10 ug	< 1.10 ug	< 1.10 ug/	< 1.10 ug	> 1.10 uç	< 1.10 ug	< 1.10 ug	< 110 ug,	< 1.10 ug	< 1.10 ug	< 1.10 ug
		Result	ĺ				_						_	-	-
	RENT /SCF	Result	ĺ				_						_	-	-
Attention: Steve Trent SAF Number:F08-070 Sample # W08GR00697	BITN39 TRENT WSCF		U < 1.10	U < 1.10	U < 1.10	0 < 1.10	U < 1.10	U < 1.10	U < 1.10	U < 1.10	U < 1.10	U < 110	U < 1.10	U < 1.10	U < 1.10

	MDL = Minimum Detection Limit	B - The analyte $<$ the RDL but $>$ = the IDL/MDL (inorg)
	RQ=Result Qualifier	D - Analyte was identified at a secondary dilution factor(inorg)
	TP Err=Total Propagated Error	J - Analyte $<$ lowest calibration but $>$ = MDL.(org)
4	DF=Dilution Factor	DF=Dilution Factor
4	* - Indicates results that have NOT been validate	 t - Indicates more than six qualifier symbols
of	Seport WGPP/ver. 5.2	
8	Groundwater Remediation Program	
4		

D - Analyte was identified at a secondary dilution factor

U - Analyzed for but not detected above limiting criteria(inorg) • Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

E - Analyte is an estimate, has potentially larger errors(inorg) N - Spike sample recovery is outside control limits. (inorg)

U - Analyzed for but not detected above limiting criteria.

Department: Organic

Sample Date: 03/19/08 Receive Date:03/20/08	RPD Analysis Limit RQ Date		25.000 04/02/08	25.000 U 04/02/08	25.000 U 04/02/08	04/02/08	04/02/08	04/02/08	04/02/08	04/02/08	04/02/08	20.000 04/02/08	20.000 04/02/08	20.000 04/02/08		04/02/08	U 04/02/08	U 04/02/08	. 04/02/08	00,00,00	04/07/08
Sample Receiv	RPD(%)		15.291	n/a	n/a							3.008	16.128	8.696							
	Upper Limit					125.000	125.000	125.000	125.000	125.000	125.000					125.000	10.000	5.000	130.000	130 000	20.00
	Lower Limit					70.000	75.000	75.000	70.000	75.000	75.000					75.000	0.000	0.000	70.000	20.000	9
	Units		RPD	RPD	RPD	% Recov	% Recov	% Recov	% Recov	% Recov	% Recov	RPD	RPD	RPD		% Recov	ug/Kg	ug/Kg	% Recov	% Recov	10000
	QC Yield					74.432	94.366	100.000	76.705	80.282	109.091					85.227	n/a	n/a	n/a	87 334	10.10
	QC Found QC Yield		15100	< 5000	< 5000	13100	0029	11000	13500	5700	12000	76.705	80.282	109.091		15000	< 5000	< 5000	ΝΑ	6200	
-	CAS#	ITH SAMPLE	540-51-2	60-29-7	107-21-1	540-51-2	60-29-7	107-21-1	540-51-2	60-29-7	107-21-1	540-51-2	60-29-7	107-21-1		540-51-2	60-29-7	107-21-1	540-51-2	60-29-7	
SDG Number: WSCF20080591 Matrix: SOLID Test: Alcohols, Glycols - 8015	Analyte	Lab ID: W08GR00694 BATCH QC ASSOCIATED WITH SAMPLE	2-Bromoethanol	Diethyl ether	Ethylene glycol	2-Bromoethanol	Diethyl ether	Ethylene glycol	2-Bromoethanol	Diethyl ether	Ethylene glycol	2-Bromoethanol	Diethyl ether	Ethylene glycol	00	2-Bromoethanol	Diethyl ether	Ethylene glycol	2-Bromoethanol	Diethyl ether	Clearly et le
SDG Number: Matrix: SOLID Test: Alcohols,	QC Type	Lab ID: BATCH	DUP	DUP	DUP	MS	MS	WS	MSD	MSD	MSD	SPK-RPD	SPK-RPD	SPK-RPD	BATCH QC	BLANK	BLANK	BLANK	SOT	S	

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Organic Sample Date: 03/19/08 Receive Date: 03/20/08 Department: SDG Number: WSCF20080591 Matrix: SOLID Test: SW-846 8270C Semi-Vols

CAS# QC Found QC Yield Units Limit
Lab ID: W08GR00694 BATCH QC ASSOCIATED WITH SAMPLE MS 1,2,4-Trichlorobenzene 120-82-1 4189.8 102.000 % Recov
106-46-7 4089.6 99.500 % Recov
121-14-2 4169.1 101.000 % Recov
367-12-4 4001.2 97.400 % Recov
83-32-9 4263.6 104.000 % Recov
59-50-7 6187.9 100.000 % Recov
95-57-8 6101.7 99.000 % Recov
621-64-7 3919.6 95.400 % Recov
321-60-8 3889.5 94.600 % Recov
108-95-2 5649.4 91.600 % Recov
4165-60-0 4081.3 99.300 % Recov
100-02-7 5852.9 94.900 % Recov
87-86-5 5471.8 88.800 % Recov
4165-62-2 3720.6 90.500 % Recov
129-00-0 4349.1 106.000 % Recov
118-79-6 3965.8 96.500 % Recov
98904-43-9 4285.2 104.000 % Recov
120-82-1 4539.1 · 110.000 % Recov
106-46-7 4518.1 110.000 % Recov
121-14-2 4458.8 108.000 % Recov
367-12-4 4438.2 108.000 % Recov
83-32-9 4530.8 110.000 % Recov
59-50-7 6237.7 101.000 % Recov
95-57-8 6899.0 112.000 % Recov
621-64-7 4467.6 109.000 % Recov
321-60-8 4503.1 110.000 % Recov

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Organic

Department:

Sample Date: 03/19/08 Receive Date:03/20/08

SDG Number: WSCF20080591 Matrix: SOLID Test: SW-846 8270C Semi-Vols

20						Lower	Upper		RPD		Analysis
Type	Analyte	CAS#	QC Found	QC Yield	Units	Limit	Limit	RPD(%)	Limit	RQ	Date
MSD	Phenol	108-95-2	6467.5	105.000	% Recov	71.000	122.000				04/08/08
MSD	Nitrobenzene-d5(Surr)	4165-60-0	4501.3	110.000	% Recov	63.000	125.000				04/08/08
MSD	4-Nitrophenol	100-02-7	6321.7	103.000	% Recov	55.000	113.000				04/08/08
MSD	Pentachlorophenol	87-86-5	6214.9	101.000	% Recov	20.000	113.000				04/08/08
MSD	Phenol-d5(Surr)	4165-62-2	4281.6	104.000	% Recov	99.000	124.000				04/08/08
MSD	Pyrene	129-00-0	4696.2	114.000	% Recov	67.000	125.000				04/08/08
MSD	2,4,6-Tribromophenol(Surr)	118-79-6	4357.4	106.000	% Recov	49.000	120.000				04/08/08
MSD	Terphenyl-d14(Surr)	98904-43-9	5199.0	126.000	% Recov	58.000	128.000				04/08/08
SPK-RPD	1,2,4-Trichlorobenzene	120-82-1	110.000		RPD			7.547	20.000		04/08/08
SPK-RPD	1,4-Dichlorobenzene	106-46-7	110.000		RPD			10.024	20.000		04/08/08
SPK-RPD	2,4-Dinitrotoluene	121-14-2	108.000		RPD			6.699	20.000		04/08/08
SPK-RPD	2-Fluorophenol(Surr)	367-12-4	108.000		RPD			10.321	20.000		04/08/08
SPK-RPD	Acenaphthene	83-32-9	110.000		RPD			5.607	20.000		04/08/08
SPK-RPD	4-Chloro-3-methylphenol	59-50-7	101.000		RPD			0.995	20.000		04/08/08
SPK-RPD	2-Chlorophenol	95-57-8	112.000		RPD			12.322	20.000		04/08/08
SPK-RPD	N-Nitrosodi-n-dipropylamine	621-64-7	109.000		RPD			13.307	20.000		04/08/08
SPK-RPD	2-Fluorobiphenyl(Surr)	321-60-8	110.000		RPD			15.054	20.000		04/08/08
SPK-RPD	Phenol	108-95-2	105.000		RPD			13.632	20.000		04/08/08
SPK-RPD	Nitrobenzene-d5(Surr)	4165-60-0	110.000		RPD			10.225	20.000		04/08/08
SPK-RPD	4-Nitrophenol	100-02-7	103.000		RPD			8.186	20.000		04/08/08
SPK-RPD	Pentachlorophenol	87-86-5	101.000		RPD			12.856	20.000		04/08/08
SPK-RPD	Phenol-d5(Surr)	4165-62-2	104.000		RPD			13.882	20.000		04/08/08
SPK-RPD	Pyrene	129-00-0	114.000		RPD			7.273	20.000		04/08/08
SPK-RPD	2,4,6-Tribromophenol(Surr)	118-79-6	106.000		RPD			9.383	20.000		04/08/08
SPK-RPD	Terphenyl-d14(Surr)	98904-43-9	126.000		RPD			19.130	20.000		04/08/08
SURR	2-Fluorophenol(Surr)	367-12-4	3693.2	90.300	% Recov	72.000	120.000				04/08/08
SURR	2-Fluorobiphenyl(Surr)	321-60-8	4702.0	115.000	% Recov	99.000	122.000				04/08/08
SURR	Nitrobenzene-d5(Surr)	4165-60-0	3648.8	89.300	% Recov	63.000	125.000				04/08/08
SURR	Phenol-d5(Surr)	4165-62-2	3566.6	87.200	% Recov	000.99	124.000				04/08/08
SURR	2,4,6-Tribromophenol(Surr)	118-79-6	3874.8	94.800	% Recov	49.000	120.000				04/08/08

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Organic

Department:

Sample Date: 03/19/08 SDG Number: WSCF20080591 Matrix: SOLID Test: SW 846 8270C Semi Vols

Test:	Test: SW-846 8270C Semi-Vols							Recei	Receive Date:03/20/08	/20/08	
8					I	Lower	Upper		RPD		Analysis
Type	Analyte	CAS#	OC Found	QC Yield	Units	Limit	Limit	RPD(%)	Limit	RQ	Date
SURR	Terphenyl-d14(Surr)	98904-43-9	4230.6	103.000	% Recov	58.000	128.000				04/08/08
Lab II	Lab ID: W08GR00695										
BATC	TH QC ASSOCIATED WITH	I SAMPLE									
SURR	2-Fluorophenol(Surr)	367-12-4	4289.3	104.000	% Recov	72.000	120.000				04/08/08
SURR	2-Fluorobiphenyl(Surr)	321-60-8	4776.1	116.000	% Recov	000.99	122.000				04/08/08
SURR	Nitrobenzene-d5(Surr)	4165-60-0	4339.3	105.000	% Recov	63.000	125.000				04/08/08
SURR	Phenol-d5(Surr)	4165-62-2	4240.2	103.000	% Recov	000.99	124.000				04/08/08
SURR	2,4,6-Tribromophenol(Surr)	118-79-6	4792.2	116.000	% Recov	49.000	120.000				04/08/08
SURR	Terphenyl-d14(Surr)	98904-43-9	4718.5	115.000	% Recov	58.000	128.000				04/08/08
BATC	ВАТСН ОС										
BLANK	1,2-Dichlorobenzene	95-50-1	< 220	n/a	ug/Kg					D	04/08/08
BLANK	1,2,4-Trichlorobenzene	120-82-1	< 150	n/a	ug/Kg					_D	04/08/08
BLANK	1,3-Dichlorobenzene	541-73-1	< 270	n/a	ug/Kg					⊃	04/08/08
BLANK	1,4-Dichlorobenzene	106-46-7	< 250	n/a	ug/Kg					⊃	04/08/08
BLANK	2,4-Dichlorophenol	120-83-2	< 170	n/a	ug/Kg					D	04/08/08
BLANK	2,4-Dinitrotoluene	121-14-2	< 150	n/a	ug/Kg					n	04/08/08
BLANK	2,4,5-Trichlorophenol	95-95-4	< 150	n/a	ug/Kg)	04/08/08
BLANK	2,4,6-Trichlorophenol	88-06-2	< 150	n/a	ug/Kg					¬	04/08/08
BLANK	2,4-Dimethylphenol	105-67-9	< 230	n/a	ug/Kg					¬	04/08/08
BLANK	2,6-Dinitrotoluene	606-20-2	< 150	n/a	ug/Kg					_D	04/08/08
BLANK	2-Chloronaphthalene	91-58-7	< 150	n/a	ug/Kg					⊃	04/08/08
BLANK	2-Fluorophenol(Surr)	367-12-4	3825.0	95.600	% Recov	72.000	120.000				04/08/08
BLANK	2-Methylnaphthalene	91-57-6	< 150	n/a	ug/Kg					D	04/08/08
BLANK	2-Methylphenol (cresol, o-)	95-48-7	< 150	n/a	ug/Kg					⊃	04/08/08
BLANK	2-Nitroaniline	88-74-4	< 150	n/a	ug/Kg					D	04/08/08
BLANK	2-Nitrophenol	88-75-5	< 170	n/a	ug/Kg					⊃	04/08/08
BLANK	3 & 4 Methylphenol Total	62794-96-9	< 150	n/a	ug/Kg					¬	04/08/08
BLANK	3-Nitroaniline	99-09-2	< 190	n/a	ug/Kg					_⊃	04/08/08

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Organic

Department:

Receive Date: Sample Date:

SDG Number: WSCF20080591 Matrix: SOLID

Test: SW-846 8270C Semi-Vols

Analysis 04/08/08 04/08/08 04/08/08 04/08/08 04/08/08 04/08/08 04/08/08 04/08/08 04/08/08 04/08/08 04/08/08 04/08/08 04/08/08 04/08/08 04/08/08 04/08/08 04/08/08 04/08/08 Date 04/08/08 04/08/08 04/08/08 04/08/08 04/08/08 04/08/08 04/08/08 04/08/08 04/08/08 04/08/08 04/08/08 34/08/08 RO \supset \supset RPD Limit RPD(%) Upper Limit Lower Limit Units ug/Kg ıg/Kg ug/Kg QC Found QC Yield n/a < 150 < 200 < 150 < 150 < 280 < 150 < 150 < 150 < 330 < 210 < 150 < 150 < 150 < 150 < 150 < 150 < 200 < 320 < 230 < 150 < 150 < 330 < 150 < 150 < 620 < 330 < 150 < 150 < 150 7005-72-3 111-91-1 01-55-3 208-96-8 20-12-7 191-24-2 207-08-9 218-01-9 132-64-9 CAS# 111-44-4 205-99-2 117-81-7 106-47-8 31-11-3 534-52-1 108-60-1 321-64-7 84-66-2 83-32-9 56-55-3 50-32-8 85-68-7 86-74-8 59-50-7 95-57-8 91-94-1 53-70-3 84-74-2 Bis(2-chloro-1-methylethyl)eth Bis(2-Chloroethoxy)methane N-Nitrosodi-n-dipropylamine 4-Bromophenylphenyl ether 4-Chlorophenylphenyl ether 4,6-Dinitro-2-methylphenol Bis(2-ethylhexyi) phthalate 4-Chloro-3-methylphenol Bis(2-chloroethyl) ether 3,3'-Dichlorobenzidine Dibenz[a,h]anthracene Benzo(b) fluoranthene Benzo(k)fluoranthene Butylbenzylphthalate Benzo(a) anthracene Benzo(ghi)perylene Di-n-butylphthalate Dimethyl phthalate Di-n-octylphthalate 2,4-Dinitrophenol **Diethylphthalate** Acenaphthylene Benzo(a)pyrene 4-Chloroaniline 2-Chlorophenol Acenaphthene Analyte Dibenzofuran Anthracene Carbazole BLANK BLANK

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8-may-2008 11:01:07

Organic

Department:

SDG Number: WSCF20080591 Matrix: SOLID Test: SW-846 8270C Semi-Vols

Sample Date: Receive Date:

Analysis	Date	8/08	8/08	8/08	8/08	8/08	8/08	3/08	3/08	80/8	3/08	3/08	3/08	3/08	3/08	3/08	3/08	3/08	3/08	3/08	3/08	3/08	3/08	3/08	3/08	3/08	80/8	3/08	3/08	80/8	80/8
An	DE	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08
	RQ		D	D	⊃	⊃	D	⊃	n	<u></u>	n	n		⊃	D	⊃	⊃	n	n		⊃	D									
RPD	Limit																														
	RPD(%)																														
Upper	Limit	122.000											125.000							124.000			120.000	128.000	118.000	121.000	112.000	110.000	121.000	117.000	114.000
Lower	Limit	96.000											63.000							900.99			49.000	58.000	76.000	68.000	68.000	50.000	75.000	68.000	84.000
-	Units	% Recov	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	% Recov	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	% Recov	ug/Kg	ug/Kg	% Recov	% Recov	% Recov	% Recov	% Recov	% Recov	% Recov	% Recov	% Recov
	QC Yield	112.000	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	101.000	n/a	n/a	n/a	n/a	n/a	n/a	95.000	n/a	n/a	105.000	108.000	88.100	86.500	91.000	82.800	91.700	76.600	87.300
	QC Found QC Yield	4498.1	< 150	< 150	< 150	< 150	< 150	< 250	< 330	< 150	< 150	< 150	4048.4	< 150	< 330	< 280	< 170	< 400	< 150	3798.1	< 150	< 150	4215.0	4331.8	3525.3	3461.4	3641.9	3311.7	3669.7	4594.4	5239.4
	CAS#	321-60-8	86-73-7	206-44-0	118-74-1	87-68-3	77-47-4	67-72-1	193-39-5	78-59-1	108-95-2	91-20-3	4165-60-0	98-95-3	100-02-7	100-01-6	9-08-98	87-86-5	85-01-8	4165-62-2	129-00-0	126-73-8	118-79-6	98904-43-9	120-82-1	106-46-7	121-14-2	367-12-4	83-32-9	59-50-7	95-57-8
	Analyte	2-Fluorobiphenyl(Surr)	Fluorene	Fluoranthene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno(1,2,3-cd)pyrene	Isophorone	Phenol	Naphthalene	Nitrobenzene-d5(Surr)	Nitrobenzene	4-Nitrophenol	4-Nitroaniline	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol-d5(Surr)	Pyrene	Tributyl phosphate	2,4,6-Tribromophenol(Surr)	Terphenyl-d14(Surr)	1,2,4-Trichlorobenzene	1,4-Dichlorobenzene	2,4-Dinitrotoluene	2-Fiuorophenol(Surr)	Acenaphthene	4-Chloro-3-methylphenol	2-Chlorophenol
8	Type	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	SOT	rcs	SOT	CS	CS	SOT	rcs

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Organic

Department:

Sample Date: Receive Date:

SDG Number: WSCF20080591 Matrix: SOLID Test: SW-846 8270C Semi-Vols

8						Lower	Upper		RPD		Analysis
Type	Analyte	CAS#	QC Found QC Yield	QC Yield	Units	Limit	Limit	RPD(%)	Limit	RQ	Date
SOT	N-Nitrosodi-n-dipropylamine	621-64-7	3271.5	81.800	% Recov	76.000	119.000				04/08/08
CS	2-Fluorobiphenyl(Surr)	321-60-8	3635.2	90.900	% Recov	58.000	109.000				04/08/08
CS	Phenol	108-95-2	5074.1	84.600	% Recov	80.000	113.000				04/08/08
SOT	Nitrobenzene-d5(Surr)	4165-60-0	3338.3	83.500	% Recov	60.000	118.000				04/08/08
SOT	4-Nitrophenol	100-02-7	5095.3	84.900	% Recov	42.000	123.000				04/08/08
SOT	Pentachlorophenoi	87-86-5	4675.5	77.900	% Recov	55.000	120.000				04/08/08
SOI	Phenol-d5(Surr)	4165-62-2	3334.3	83.400	% Recov	59.000	116.000				04/08/08
SOT	Pyrene	129-00-0	3709.5	92.700	% Recov	67.000	122.000				04/08/08
SOT	2,4,6-Tribromophenol(Surr)	118-79-6	3451.3	86.300	% Recov	60.000	120.000				04/08/08
SOT	Terphenyl-d14(Surr)	98904-43-9	3667.8	91.700	% Recov	60.000	120.000				04/08/08

Organic

Department:

QC Anolete	Ical. In this III-D in it Dieses Mange (wa)						Recei	Receive Date:03/20/08	Receive Date:03/20/08	
Analyte	CAS#	QC Found QC Yield	QC Yield	Units	Lower	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR00694 BATCH QC ASSOCIATED WITH SAMPLE	TH SAMPLE									
ortho-Terphenyl Surr	84-15-1	20341	99.000	% Recov	70.000	130.000				04/09/08
Total Pet. Hydrocarbons Diesel	TPHDIESEL	108870	106.000	% Recov	75.000	125.000				04/09/08
ortho-Terphenyl Surr	84-15-1	20978	102.000	% Recov	70.000	130.000				04/09/08
Total Pet. Hydrocarbons Diesel	TPHDIESEL	120010	117.000	% Recov	75.000	125.000				04/09/08
ortho-Terphenyl Surr	84-15-1	102.000		RPD			2.985	20.000		04/09/08
Total Pet. Hydrocarbons Diesel	TPHDIESEL	117.000		RPD			9.865	20.000		04/09/08
ortho-Terphenyl Surr	84-15-1	18751	91.100	% Recov	70.000	130.000				04/09/08
Lab ID: W08GR00695 BATCH QC ASSOCIATED WITH SAMPLE	TH SAMPLE									
ortho-Terphenyl Surr	84-15-1	19144	92.700	% Recov	70.000	130.000				04/09/08
ВАТСН ОС										
Kerosene	TPHKEROSENE	< 3000	n/a	ug/Kg					o	04/09/08
ortho-Terphenyl Surr	84-15-1	19033	95.200	% Recov	70.000	130.000				04/09/08
Total Pet. Hydrocarbons Diesel	TPHDIESEL	< 3000	n/a	ug/Kg					n	04/09/08
ortho-Terphenyl Surr	84-15-1	22253	111.000	% Recov	70.000	130.000				04/09/08
Total Pet. Hydrocarbons Diesel	TPHDIESEL	119940	120.000	% Recov	80.000	120.000	•			04/09/08

Organic Sample Date: 03/06/08 Receive Date: 03/19/08 Department: SDG Number: WSCF20080591 Matrix: SOLID Test: VOA Ground Water Protection

Analysis Date

RQ

RPD Limit

RPD(%)

Upper Limit

Lower Limit

Units

QC Found QC Yield

CAS#

Analyte

Cy Type

Lab ID: BATCH	Lab ID: W08GR00665 BATCH QC ASSOCIATED WITH SAMPLE	SAMPLE								
MS	1,1-Dichloroethene	75-35-4	28.970	106.000	% Recov	63.000	117.000			03/26/08
MS	Benzene	71-43-2	29.000	106.000	% Recov	75.000	129.000			03/26/08
MS	4-Bromofluorobenzene(Surr)	460-00-4	56.560	103.000	% Recov	75.000	125.000			03/26/08
MS	Chlorobenzene	108-90-7	27.750	101.000	% Recov	000.62	119.000			03/26/08
MS	1,2-Dichloroethane-d4(Surr)	17060-07-0	63.030	115.000	% Recov	75.000	125.000			03/26/08
MS	Toluene-d8(Surr)	2037-26-5	57.390	105.000	% Recov	75.000	125.000			03/26/08
MS	Toluene	108-88-3	29.060	106.000	% Recov	76.000	120.000			03/26/08
MS	Trichloroethene	79-01-6	24.140	88.000	% Recov	73.000	123.000			03/26/08
MSD	1,1-Dichloroethene	75-35-4	25.560	109.000	% Recov	63.000	117.000			03/26/08
MSD	Benzene	71-43-2	25.720	109.000	% Recov	75.000	129.000			03/26/08
MSD	4-Bromofluorobenzene(Surr)	460-00-4	48.640	103.000	% Recov	75.000	125.000			03/26/08
MSD	Chlorobenzene	108-90-7	24.870	106.000	% Recov	79.000	119.000			03/26/08
MSD	1,2-Dichloroethane-d4(Surr)	17060-07-0	53.010	113.000	% Recov	75.000	125.000			03/26/08
MSD	Toluene-d8(Surr)	2037-26-5	48.340	103.000	% Recov	75.000	125.000			03/26/08
MSD	Toluene	108-88-3	25.330	108.000	% Recov	76.000	120.000			03/26/08
MSD	Trichloroethene	79-01-6	21.210	90.200	% Recov	73.000	123.000			03/26/08
SPK-RPD	1,1-Dichloroethene	75-35-4	109.000		RPD			2.791	20.000	03/26/08
SPK-RPD	Benzene	71-43-2	109.000		RPD			2.791	20.000	03/26/08
SPK-RPD	4-Bromofluorobenzene(Surr)	460-00-4	103.000		RPD			0.000	20.000	03/26/08
SPK-RPD	Chlorobenzene	108-90-7	106.000		RPD			4.831	20.000	03/26/08
SPK-RPD	1,2-Dichloroethane-d4(Surr)	17060-07-0	113.000		RPD			1.754	20.000	03/26/08
SPK-RPD	Toluene-d8(Surr)	2037-26-5	103.000		RPD			1.923	20.000	03/26/08
SPK-RPD	Toluene	108-88-3	108.000		RPD			1.869	20.000	03/26/08
SPK-RPD	Trichloroethene	79-01-6	90.200		RPD			2.469	20.000	03/26/08

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Department: Organic

)3/19/08)3/20/08	Analysis RQ Date		03/26/08	03/26/08	03/26/08		03/26/08	03/26/08	03/26/08		U 03/26/08	U 03/26/08	U 03/26/08	U 03/26/08	U 03/26/08	U 03/26/08	U 03/26/08	U 03/26/08	U 03/26/08	U 03/26/08	U 03/26/08	U 03/26/08	U 03/26/08	03/26/08	U 03/26/08	U 03/26/08
Sample Date: 03/19/08 Receive Date: 03/20/08	RPD(%) Limit																									
	Upper Limit RI		125.000	125.000	126.000		125.000	125.000	126.000															125.000		
	Lower Limit		75.000	75.000	80.000		75.000	75.000	80.000															75.000		
	Units		% Recov	% Recov	% Recov		% Recov	% Recov	% Recov		ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	% Recov	ug/Kg	ug/Kg
	QC Yield		102.000	116.000	105.000		104.000	114.000	105.000		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	105.000	n/a	n/a
	QC Found		53.480	60.780	55.360		56.010	61.640	56.620		0.1 >	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 100	0.1 >	< 1.0	< 1.0	< 1.0	< 1.0	52.480	< 1.0	< 1.0
1 ection	CAS#	ITH SAMPLE	460-00-4	17060-07-0	2037-26-5	ITH SAMPLE	460-00-4	17060-07-0	2037-26-5		75-34-3	71-55-6	79-00-5	79-34-5	75-35-4	107-06-2	540-59-0	71-36-3	591-78-6	108-10-1	67-64-1	75-27-4	71-43-2	460-00-4	75-25-2	75-15-0
SDG Number: WSCF20080591 Matrix: SOLID Test: VOA Ground Water Protection	Analyte	Lab ID: W08GR00696 BATCH QC ASSOCIATED WITH SAMPLE	4-Bromofluorobenzene(Surr)	1,2-Dichloroethane-d4(Surr)	Toluene-d8(Surr)	Lab ID: W08GR00697 BATCH QC ASSOCIATED WITH SAMPLE	4-Bromofluorobenzene(Surr)	1,2-Dichloroethane-d4(Surr)	Toluene-d8(Surr)	н ос	1,1-Dichloroethane	1,1,1-Trichloroethane	1,1,2-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1-Dichloroethene	1,2-Dichloroethane	1,2-Dichloroethene(Total)	1-Butanol	2-Hexanone	4-Methyl-2-Pentanone	Acetone	Bromodichloromethane	Benzene	4-Bromofluorobenzene(Surr)	Bromoform	Carbon disulfide
SDG N Matrix Test: V	QC Type	Lab ID: BATCH	SURR	SURR	SURR	Lab ID: BATCH	SURR	SURR	SURR	ВАТСН ОС	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK

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Organic

Department:

Sample Date: Receive Date:

SDG Number: WSCF20080591 Matrix: SOLID

Test: VOA Ground Water Protection

Analysis 03/26/08 03/26/08 03/26/08 03/26/08 03/26/08 03/26/08 03/26/08 03/26/08 03/26/08 03/26/08 03/26/08 03/26/08 03/26/08 03/26/08 03/26/08 33/26/08 03/26/08 03/26/08 03/26/08 03/26/08 03/26/08 03/26/08 33/26/08 03/26/08 33/26/08 03/26/08 03/26/08 03/26/08 03/26/08 03/26/08 Date RO \supset \supset \supset \supset \supset \supset \supset \supset \supset **D** D \supset \supset \supset \supset RPD Limit RPD(%) 125.000 125.000 125.000 125.000 125.000 126.000 125.000 126.000 5.000 Upper Limit 80.000 75.000 75.000 75.000 75.000 75.000 75.000 80.000 0.000 Lower Limit % Recov % Recov % Recov Units ug/Kg 03.000 04.000 000.60 08.000 04.000 16.000 QC Found QC Yield 03.000 17.000 n/a 58.390 51.920 27.130 27.060 51.430 26.100 57.920 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 1.0 < 1.0 < 1.0 0061-01-5 10061-02-6 0-00-020 7060-07-0 1330-20-7 2037-26-5 037-26-5 56-60-5 108-88-3 CAS# 56-59-2 127-18-4 100-42-5 08-90-7 75-00-3 00-41-4 75-09-2 160-00-4 08-90-7 67-66-3 79-01-6 75-35-4 56-23-5 8-87-5 74-83-9 74-87-3 78-93-3 75-69-4 71-43-2 75-01-4 [richloromonofluoromethane 1,2-Dichloroethane-d4(Surr) 4-Bromofluorobenzene (Surr) 1,2-Dichloroethane-d4(Surr) trans-1,2-Dichloroethylene trans-1,3-Dichloropropene cis-1,2-Dichloroethylene cis-1,3-Dichloropropene Dibromochloromethane Carbon tetrachloride 1,2-Dichloropropane 1,1-Dichloroethene **Methylenechloride** Fetrachloroethene Foluene-d8(Surr) Toluene-d8(Surr) **Trichloroethene** Chlorobenzene Bromomethane Chloromethane Xylenes (total) Analyte Vinyl chloride Chloroethane Ethylbenzene Chloroform 2-Butanone Styrene Toluene BLANK 8 BLANK S S S CS

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CS

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Organic

Department:

Sample Date: Receive Date:

SDG Number: WSCF20080591 Matrix: SOLID Test: VOA Ground Water Protection

Analysis Date	03/26/08	03/26/08	
RQ			
RPD Limit			
RPD(%)			
Upper Limit	125.000	125.000	
Lower Limit	75.000	75.000	
Units	% Recov	% Recov	
QC Yield	106.000	88.800	
QC Found	26.560	22.210	
CAS#	108-88-3	9-01-6	
Analyte	Toluene	Trichloroethene	
QC Type	SJT	SOT	

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ANALYTICAL RESULTS REPORT WSCF

	Attention: Steve Tr SAF Number:F08-070 Sample # W08GR(Steve Trent F08-070 W08GR00694									O A B	Group #: Department: Sampled:	WSCF20080591 Radiochemistry 03/19/08	
	Client ID:	B1TN41	TRENT				Matrix:		SOIL		Ä	Received:	03/20/08	
	Test Performed	CAS#			RQ R	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date	
	Americium by AEA				,									1
•	Americium-241	14596-10-2	-2 LA-508-471	171 U		0.0220	pCi/g	+-0.0279	pCi/g	1.00	0.044		04/08/08	
•	Am-243 tracer by AEA	AM243	LA-508-471	171		4.00	pCi/g			1.00	0.025		04/08/08	
_	Gamma Energy Analysis-grd H2O	lysis-grd H2O												
`	Antimony-125	14234-35-6	-6 LA-508-481	181 U		-4.05e-03	pCi/g	+-0.0178	pCi/g	1.00	0.030		03/27/08	
J	Cobalt-60	10198-40-0	-0 LA-508-481	181 U		3.08e-03	pCi/g	+-6.48e-03	pCi/g	1.00	0.012		03/27/08	
J	Cesium-137	10045-97-3	-3 LA-508-481	181 U		1.30e-04	pCi/g	+-1.30e-03	pCi/g	1.00	0.012		03/27/08	
	Europium-152	14683-23-9	-9 LA-508-481	181 U		-0.0121	pCi/g	+-0.0228	pCi/g	1.00	0.033		03/27/08	
ш	Europium-154	15585-10-1	-1 LA-508-481			-0.0149	pCi/g	+-0.0210	pCi/g	1.00	0.035		03/27/08	
	Europium-155	14391-16-3	-3 LA-508-481	181 U		2.12e-03	pCi/g	+-0.0212	pCi/g	1.00	0.049		03/27/08	
_	Radium-226	13982-63-3	-3 LA-508-481	181		0.488	pCi/g	+-0.0797	pCi/g	1.00	0.022		03/27/08	
_	Radium-228	15262-20-1	-1 LA-508-481	181		0.623	pCi/g	+-0.109	pCi/g	1.00	0.037		03/27/08	
_	Neptunium by AEA													
_	Neptunium-237	13994-20-2	-2 LA-508-471	171 U		8.80e-03	pCi/g	+-0.0216	pCi/g	1.00	0.041		05/02/08	
,	Plutonium Isotopics by AE.	by AEA												
_	Plutonium-238	13981-16-3	-3 LA-508-471	171 U		9.20e-03	pCi/g	+-0.0134	pCi/g	1.00	0.022		04/08/08	
_	Pu-239/240 by AEA	PU-239/240	10 LA-508-471	171		5.50e-03	pCi/g	+-6.49e-03	pCi/g	1.00	5.0e-03		04/08/08	
<u>.</u> •1	Pu-242 tracer by AEA Strontium 89/90	PU242	LA-508-471	17.1		6.20	pCi/g			1.00	4.9e-03		04/08/08	
0,	Strontium-89/90	SR-RAD	LA-508-415	115 U		0.130	pCi/g	+-0.966	pCi/g	1.00	0.38		04/07/08	
., 	Sr-85 Tracer by Beta Counting Uranium Isotopics by AEA	ting SR85 VAEA	LA-508-415	115		99.7	Percent			1.00	0.0		04/07/08	
ر	Uranium-233/234	U-233/234	4 LA-508-471	171		0.170	pCi/g	+-0.0561	pCi/g	1.00	0.016		04/02/08	
ر	Uranium-235	15117-96-1	-1 LA-508-471	171		5.80e-03	pCi/g	+-6.84e-03	pCi/g	1.00	5.2e-03		04/02/08	
٦	Uranium-238	U-238	LA-508-471	171		0.120	pCi/g	+-0.0432	pCi/g	1.00	0.013		04/02/08	
	MDL = Minimum Detection Limit	tection Limit	B - The analyte < the RDL but > =	> < the RI	DL but >=	= the IDL/MDL (inorg)	(inorg)		D - Analyte	D - Analyte was identified at a secondary dilution factor	secondary diluti	on factor		
_	RQ=Result Qualifier	Ŀ	D - Analyte was identified at a secondary dilution factor(inorg)	s identifie	d at a sec	ondary dilutio	n factor(inorg)		E - Analyte i	E - Analyte is an estimate, has potentially larger errors(inorg)	potentially large	r errors(inorg)		
	TP Err=Total Propagated Error	igated Error	J - Analyte < lowest calibration but	lowest cal	libration bu	ut > = MDL.(org)	org)		N - Spike sa	N - Spike sample recovery is outside control limits.(inorg)	utside control lin	iits.(inorg)		
- 57	DF = Dilution Factor		U - Analyzed for but not detected above limiting criteria(inorg)	or but not	detected	above limiting	criteria(inorg)		U - Analyzec	U - Analyzed for but not detected above limiting criteria.	ted above limitin	g criteria.		
7														

U - Analyzed for but not detected above limiting criteria(inorg) * - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols Report WGPP/ver. 5.2 DF = Dilution Factor

Groundwater Remediation Program

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ANALYTICAL RESULTS REPORT WSCF

WSCF20080591 : Radiochemistry 03/19/08 03/20/08	Analysis Date	04/02/08
Group #: Department Sampled: Received:	PQL	
Olor	MDL	0.033
	DF	1.00
TIOS	Unit	
Aatrix: S	TP Err	
Ma	Unit	pCi/g
	Result	4.10
	RQ	
TRENT WSCF	CAS # Method RQ Re	LA-508-471
Attention: Steve Trent SAF Number:F08-070 Sample # W08GR00694 Client ID: B1TN41 TRENT WSCF	CAS#	U232
Attention: SAF Number Sample # Client ID:	Test Performed	U-232 tracer by AEA

tactor	;
dilution	
secondary	
at a	
dentified	
D - Analyte was identified at a secondary dilution factor	

E - Analyte is an estimate, has potentially larger errors(inorg)

D - Analyte was identified at a secondary dilution factor(inorg)

J - Analyte < lowest calibration but > = MDL.(org)

B - The analyte < the RDL but > = the IDL/MDL (inorg)

MDL = Minimum Detection Limit

N - Spike sample recovery is outside control limits. (inorg) U - Analyzed for but not detected above limiting criteria.

U - Analyzed for but not detected above limiting criteria(inorg) * - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

ANALYTICAL RESULTS REPORT

	E								٥	#	10308006703/11
ber	Steve Trent F08-070								ēĞΰ	Group #: Department:	WSCF20080591 Radiochemistry
Sample # V	wosckooby B1TNP2	TRENT			Matrix:		SOIL		R Sa	Sampled: Received:	03/19/08 03/20/08
Test Performed	CAS#		RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Americium by AEA											
Americium-241	14596-10-2	-2 LA-508-471	D	0.0350	pCi/g	+-0.0273	pCi/g	1.00	0.038		04/08/08
Am-243 tracer by AEA	AM243	LA-508-471		3.80	pCi/g			1.00	0.026		04/08/08
Gamma Energy Analysis-grd H2O	ysis-grd H2O										
Antimony-125	14234-35-6	-6 LA-508-481	>	3.34e-03	pCi/g	+-0.0188	pCi/g	1.00	0.032		04/01/08
Cobalt-60	10198-40-0	-0 LA-508-481	J	-2.72e-04	pCi/g	+-2.72e-03	pCi/g	1.00	0.012		04/01/08
Cesium-137	10045-97-3	-3 LA-508-481	>	-3.27e-03	pCi/g	+-7.80e-03	pCi/g	1.00	0.011		04/01/08
Europium-152	14683-23-9	-9 LA-508-481	⊃	0.0115	pCi/g	+-0.0225	pCi/g	1.00	0.036		04/01/08
Europium-154	15585-10-1	-1 LA-508-481	⊃	-0.0175	pCi/g	+-0.0234	pCi/g	1.00	0.039		04/01/08
Europium-155	14391-16-3	-3 LA-508-481	>	0.0278	pCi/g	+-0.0338	pCi/g	1.00	0.050		04/01/08
Radium-226	13982-63-3	-3 LA-508-481		0.496	pCi/g	+-0.0829	pCi/g	1.00	0.022		04/01/08
Radium-228	15262-20-1	-1 LA-508-481		0.562	pCi/g	+-0.101	pCi/g	1.00	0.038		04/01/08
Neptunium by AEA											
Neptunium-237	13994-20-2	-2 LA-508-471	⊃	4.20e-03	pCi/g	+-0.0420	pCi/g	1.00	0.045		05/02/08
Plutonium Isotopics by AEA	y AEA										
Plutonium-238	13981-16-3	-3 LA-508-471	n	-0.0230	pCi/g	+-0.0313	pCi/g	1.00	0.059		04/08/08
Pu-239/240 by AEA	PU-239/240	40 LA-508-471	⊃	8.80e-03	pCi/g	+-9.59e-03	pCi/g	1.00	0.013		04/08/08
Pu-242 tracer by AEA	PU242	LA-508-471		00.9	pCi/g			1.00	0.013		04/08/08
Strontium 89/90											
Strontium-89/90	SR-RAD	LA-508-415	n	-0.280	pCi/g	+-0.823	pCi/g	1.00	0.37		04/07/08
Sr-85 Tracer by Beta Counting	ng SR85	LA-508-415		9.66	Percent			1.00	0.0		04/07/08
Uranium Isotopics by AEA	AEA										
Uranium-233/234	U-233/234	4 LA-508-471		0.130	pCi/g	+-0.0455	pCi/g	1.00	4.9e-03		04/02/08
Uranium-235	15117-96-1	-1 LA-508-471	n	0.0120	pCi/g	+-0.0142	pCi/g	1.00	0.021		04/02/08
Uranium-238	U-238	LA-508-471		0.150	pCi/g	+-0.0510	pCi/g	1.00	0.013		04/02/08
MDL = Minimum Detection Limit	ection Limit	B - The analyte < the RDL but >	the RDL bu	It > = the IDL/MDL (inorg))L (inorg)		D - Analyte	D - Analyte was identified at a secondary dilution factor	secondary dilutic	on factor	
RQ=Result Qualifier		D - Analyte was identified at a secondary dilution factor(inorg)	entified at	a secondary diluti	on factor(inorg	(f:	E - Analyte	E - Analyte is an estimate, has potentially larger errors(inorg)	potentially large	r errors(inorg)	
TP Frr=Total Propagated Error	sated Error	(and) IOM = / trid notitoridized teamon / atyles A	iter colibrati	IOM - / tind ac	(020)		N Spike ca	N - Snike sample recovery is outside control limits (inorg)	iteide control lim	its (inora)	

U - Analyzed for but not detected above limiting criteria(inorg) J - Analyte < lowest calibration but > = MDL.(org) TP Err=Total Propagated Error DF=Dilution Factor

N - Spike sample recovery is outside control limits.(inorg) U - Analyzed for but not detected above limiting criteria.

 $^{\circ}$ - Indicates results that have NOT been validated; $^{\circ}$ + - Indicates more than six qualifier symbols Report WGPP/ver. 5.2

Groundwater Remediation Program

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ANALYTICAL RESULTS REPORT WSCF

WSCF20080591 t: Radiochemistry 03/19/08 03/20/08	Analysis Date	04/02/08
Group #: Departmen! Sampled: Received:	PQL	
GUSK	MDL	0.030
	DF	1.00
TIOS	Unit	
Aatrix: S	TP Err	
Mat	Unit	pCi/g
	Result	4.00
	RQ	
TRENT	CAS # Method RQ Re	LA-508-471
Attention: Steve Trent SAF Number:F08-070 Sample # W08GR00695 Client ID: B1TNP2 Ti	CAS#	U232
Attention: SAF Number Sample # Client ID:	Test Performed	U-232 tracer by AEA

factor
dilution
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identified
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Analyte
1

E - Analyte is an estimate, has potentially larger errors(inorg)

N - Spike sample recovery is outside control limits. (inorg)

D - Analyte was identified at a secondary dilution factor(inorg)

J - Analyte < lowest calibration but > = MDL.(org)

B - The analyte < the RDL but > = the IDL/MDL (inorg)

MDL = Minimum Detection Limit

TP Err = Total Propagated Error

RQ=Result Qualifier

U - Analyzed for but not detected above limiting criteria.

WSCF

TENTATIVELY IDENTIFIED PEAK REPORT

Attention: Project Number		Steve Trent F08-070 :F08-070			Group #: Departmen	Group #: WSCF20080591 Department: Radiochemistry	30591 istry
Sample # Client ID		Test Name	Peak Name	CAS#	RT	RQ Result	Units
W08GR00694 B1TN41	TRENT	Gamma Energy Analysis-grd H2O	AC-228			0.56	pCi/g
W08GR00694 B1TN41	TRENT	Gamma Energy Analysis-grd H2O	AC-228 Count Error			21	%
W08GR00694 B1TN41	TRENT	Gamma Energy Analysis-grd H2O	BI-212			0.41	pCi/g
W08GR00694 B1TN41	TRENT	Gamma Energy Analysis-grd H2O	BI-212 Count Error			28	%
W08GR00694 B1TN41	TRENT	Gamma Energy Analysis-grd H2O	BI-214			0.55	pCi/g
W08GR00694 B1TN41	TRENT	Gamma Energy Analysis-grd H2O	BI-214 Count Error			14	%
W08GR00694 B1TN41	TRENT	Gamma Energy Analysis-grd H2O	CS-134			0.026	pCi/g
W08GR00694 B1TN41	TRENT	Gamma Energy Analysis-grd H2O	CS-134 Count Error			37	%
W08GR00694 B1TN41	TRENT	Gamma Energy Analysis-grd H2O	K-40			19	pCi/g
W08GR00694 B1TN41	TRENT	Gamma Energy Analysis-grd H2O	K-40 Count Error			13	%
W08GR00694 B1TN41	TRENT	Gamma Energy Analysis-grd H2O	PB-212			0.71	pCi/g
W08GR00694 B1TN41	TRENT	Gamma Energy Analysis-grd H2O	PB-212 Count Error			10	%
W08GR00694 B1TN41	TRENT	Gamma Energy Analysis-grd H2O	PB-214			0.89	pCi/g
W08GR00694 B1TN41	TRENT	Gamma Energy Analysis-grd H2O	PB-214 Count Error			21	%
W08GR00694 B1TN41	TRENT	Gamma Energy Analysis-grd H2O	SN-126			0.16	pCi/g
W08GR00694 B1TN41	TRENT	Gamma Energy Analysis-grd H2O	SN-126 Count Error			24	%
W08GR00694 B1TN41	TRENT	Gamma Energy Analysis-grd H2O	TH-234			0.87	pCi/g
W08GR00694 B1TN41	TRENT	Gamma Energy Analysis-grd H2O	TH-234 Count Error			24	%
W08GR00694 B1TN41	TRENT	Gamma Energy Analysis-grd H2O	TL-208			0.21	pCi/g
W08GR00694 B1TN41	TRENT	Gamma Energy Analysis-grd H2O	TL-208 Count Error			15	%
W08GR00695 B1TNP2	TRENT	Gamma Energy Analysis-grd H2O	AC-228			0.57	pCi/g
W08GR00695 B1TNP2	TRENT	Gamma Energy Analysis-grd H2O	AC-228 Count Error			20	%
W08GR00695 B1TNP2	TRENT	Gamma Energy Analysis-grd H2O	BI-212			0.44	pCi/g
W08GR00695 B1TNP2	TRENT	Gamma Energy Analysis-grd H2O	BI-212 Count Error			21	%
W08GR00695 B1TNP2	TRENT	Gamma Energy Analysis-grd H2O	BI-214			0.56	pCi/g

RQ=Result Qualifier

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Groundwater Remediation Program

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Report Date: 8-may-2008

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WSCF

TENTATIVELY IDENTIFIED PEAK REPORT

Attention: Project Number		Steve Trent F08-070 :F08-070			Group #: WSCF2008059 Department: Radiochemistry	WSCF2 t: Radioch	WSCF20080591 Radiochemistry
Sample # Client ID		Test Name	Peak Name	CAS#	RT	RQ Result	lt Units
W08GR00695 B1TNP2 TRENT		Gamma Energy Analysis-grd H20	BI-214 Count Error			14	%
W08GR00695 B1TNP2 TRENT	_	Gamma Energy Analysis-grd H2O	CS-134			0.022	pCi/g
W08GR00695 B1TNP2 TRENT	_	Gamma Energy Analysis-grd H2O	CS-134 Count Error			46	%
W08GR00695 B1TNP2 TRENT	_	Gamma Energy Analysis-grd H2O	K-40			19	pCi/g
W08GR00695 B1TNP2 TRENT	_	Gamma Energy Analysis-grd H2O	K-40 Count Error			13	%
W08GR00695 B1TNP2 TRENT	_	Gamma Energy Analysis-grd H2O	PB-212			0.70	pCi/g
W08GR00695 B1TNP2 TRENT	_	Gamma Energy Analysis-grd H2O	PB-212 Count Error			10	%
W08GR00695 B1TNP2 TRENT	-	Gamma Energy Analysis-grd H2O	PB-214			96.0	pCi/g
W08GR00695 B1TNP2 TRENT	_	Gamma Energy Analysis-grd H2O	PB-214 Count Error			23	%
WO8GRO0695 B1TNP2 TRENT	_	Gamma Energy Analysis-grd H2O	SN-126			0.17	pCi/g
WO8GROO695 B1TNP2 TRENT	_	Gamma Energy Analysis-grd H2O	SN-126 Count Error			24	%
W08GR00695 B1TNP2 TRENT	_	Gamma Energy Analysis-grd H2O	TH-234			0.67	pCi/g
WO8GRO0695 B1TNP2 TRENT	_	Gamma Energy Analysis-grd H2O	TH-234 Count Error			31	%
W08GR00695 B1TNP2 TRENT	_	Gamma Energy Analysis-grd H2O	TL-208			0.19	pCi/g
WO8GROO695 B1TNP2 TRENT	_	Gamma Energy Analysis-grd H2O	TL-208 Count Error			16	%

RQ=Result Qualifier

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Report Date: 8-may-2008

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Radiochemistry

Department:

SDG N Matrix:	SDG Number: WSCF20080591 Matrix: SOLID							Samp	Sample Date: 03/19/08	19/08	
Test: G	Test: Gamma Energy Analysis-grd H2O	I H20						Recei	Receive Date:03/20/08	20/08	
QC Type	Analyte	CAS#	QC Found QC Yield	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
1,1	MOSOCIOCA										
BATCI	LAU ID: WOOGROOP4 BATCH QC ASSOCIATED WITH SAMPLE	H SAMPLE									
DUP	Cobalt-60	10198-40-0	U4.626e-3		RPD			n/a	20.000		04/23/08
DUP	Cesium-137	10045-97-3	U-5.321e-3		RPD			n/a	20.000		04/23/08
DUP	Europium-152	14683-23-9	U-2.229e-3		RPD			n/a	20.000		04/23/08
DUP	Europium-154	15585-10-1	U-4.027e-3		RPD			n/a	20.000		04/23/08
DUP	Europium-155	14391-16-3	U2.991e-2		RPD			n/a	20.000		04/23/08
DUP	Radium-226	13982-63-3	0.451		RPD			7.901	20.000		04/23/08
DUP	Radium-228	15262-20-1	0.601		RPD			3.547	20.000		04/23/08
DUP	Antimony-125	14234-35-6	U1.201e-2		RPD			n/a	20.000		04/23/08
BATCH QC	J 0C										
BLANK	Cobalt-60	10198-40-0	U3.108e-4	n/a	pCi/g	-10.000	1000.000				03/31/08
BLANK	Cesium-137	10045-97-3	U-2.051e-3	n/a	pCi/g	-10.000	1000.000				03/31/08
BLANK	Europium-152	14683-23-9	U4.964e-3	n/a	pCi/g	-10.000	1000.000				03/31/08
BLANK	Europium-154	15585-10-1	U-5.561e-3	n/a	pCi/g	-10.000	1000.000				03/31/08
BLANK	Europium-155	14391-16-3	U9.188e-5	n/a	pCi/g	-10.000	1000.000				03/31/08
BLANK	Radium-226	13982-63-3	8.861e-2	0.089	pCi/g	-10.000	1000.000				03/31/08
BLANK	Radium-228	15262-20-1	2.391e-2	0.024	pCi/g	-10.000	1000.000				03/31/08
BLANK	Antimony-125	14234-35-6	U4.665e-4	n/a	pCi/g	-10.000	1000.000				03/31/08
SOT	Cobalt-60	10198-40-0	10440	105.030	% Recov	80.000	120.000				03/27/08
SOT	Cesium-137	10045-97-3	6263	103.692	% Recov	80.000	120.000				03/27/08

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Radiochemistry

Department:

	Analysis Date	04/08/08	04/08/08	04/08/08	04/08/08 04/08/08 04/08/08
3/06/08 3/19/08	RQ				
Sample Date: 03/06/08 Receive Date:03/19/08	RPD Limit	20.000			
Samp Recei	RPD(%)	10.909			
	Upper Limit	105.000	105.000	105.000	1000.000 105.000 120.000 105.000
	Lower Limit	30.000	30.000	30.000	-10.000 30.000 80.000 30.000
	Units	RPD % Recov	% Recov	% Recov	pCi/g % Recov % Recov % Recov
	QC Yield	95.500	97.840	95.090	n/a 75.730 95.359 86.910
	QC Found QC Yield	0.29	3.984	3.847	U4.1e-3 4.024 11.3 11.17
	CAS#	I SAMPLE 14596-10-2 AM243	I SAMPLE AM243	I SAMPLE am243	14596-10-2 AM243 14596-10-2 AM243
SDG Number: WSCF20080591 Matrix: SOLID Test: Americium by AEA	Analyte	Lab ID: W08GR00663 BATCH QC ASSOCIATED WITH SAMPLE DUP Americium-241 DUP Am-243 tracer by AEA AM243	Lab ID: W08GR00694 BATCH QC ASSOCIATED WITH SAMPLE SURR Am-243 tracer by AEA AM243	Lab ID: W08GR00695 BATCH QC ASSOCIATED WITH SAMPLE SURR Am-243 tracer by AEA AM243	H QC Americium-241 Am-243 tracer by AEA Americium-241 Am-243 tracer by AEA
SDG 1 Matrix Test: 4	QC Type	Lab ID BATC DUP DUP	Lab IL BATC SURR	Lab ID BATC SURR	BATCH QC BLANK Ameri BLANK Am-2- LCS Ameri

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Radiochemistry

Department:

SDG N Matrix: Test: N	SDG Number: WSCF20080591 Matrix: SOLID Test: Neptunium by AEA							Samp Recei	Sample Date: 03/06/08 Receive Date:03/19/08	3/06/08 3/19/08	
QC Type	Analyte	CAS#	QC Found QC Yield	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID:	Lab ID: W08GR00663	SAMPIF									
and and	Neptunium-237	13994-20-2	0.3		RPD			22.222	25.000		05/02/08
MS	Neptunium-237	13994-20-2	100.6	100.600	% Recov	75.000	125.000				05/02/08
MSD	Neptunium-237	13994-20-2	100.6	100.600	% Recov	75.000	125.000				05/02/08
SPK-RPD	Neptunium-237	13994-20-2	100.600		% RPD			0.000	20.000		05/02/08
Lab ID BATCE	Lab ID: W08GR00694 BATCH QC ASSOCIATED WITH SAMPLE	SAMPLE									
MS	Neptunium-237	13994-20-2	100.4	100.400	% Recov	75.000	125.000				05/02/08
Lab ID: BATCE	Lab ID: W08GR00695 BATCH QC ASSOCIATED WITH SAMPLE MS Neptunium-237 13994-20-2	SAMPLE 13994-20-2	99.2	99.200	% Recov	75.000	125.000				05/02/08
BATCH QC BLANK Neptu	1 QC Neptunium-237	13994-20-2	26-2	0.020	pCi/G	-10.000	1000.000				05/02/08
SOT	Neptunium-237	13994-20-2	13.12	102.942	% Recov	80.000	120.000				05/02/08

Department: Radiochemistry

Sample Date: 03/06/08 Receive Date:03/19/08	Analysis RQ Date	000000		04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	04/08/08	
ple Date	RPD	6	20.000								
Sam Reco	RPD(%)	,	9.524								
	Upper			105.000	105.000	105.000	1000.000	1000.000	105.000	120.000	200
	Lower			30.000	30.000	30.000	-10.000	-10.000	30.000	80.000	
	Units	Cda	RPD C	% Recov	% Recov	% Recov	DCi/a	pCi/g	% Recov	% Recov	6
	QC Yield			82.370	95.470	89.740	е/п	n/a	90.800	98.248	010
	QC Found QC Yield	12 16.2	1	5.985	6.174	5.962	U-9.8e-3	U2e-3	6.236	12.62	71.0
	CAS#	I SAMPLE	PU-239/240	PU242	I SAMPLE PU242	I SAMPLE PU242	13981-16-3	PU-239/240	PU242	PU-239/240	011343
SDG Number: WSCF20080591 Matrix: SOLID Test: Plutonium Isotopics by AEA	Analyte	Lab ID: W08GR00663 BATCH.QC ASSOCIATED WITH SAMPLE	Pu-239/240 by AEA	Pu-242 tracer by AEA	Lab ID: W08GR00694 BATCH QC ASSOCIATED WITH SAMPLE SURR PU-242 tracer by AEA	Lab ID: W08GR00695 BATCH QC ASSOCIATED WITH SAMPLE SURR PU-242 tracer by AEA PU242	H QC Plutonium-238	Pu-239/240 by AEA	Pu-242 tracer by AEA	Pu-239/240 by AEA	0. 040 territory
SDG N Matrix Test: P	QC Type	Lab ID: BATCH.(DUP	DUP	Lab ID: BATCH (Lab ID: BATCH SURR	BATCH QC	BLANK	BLANK	rcs	0

Radiochemistry

Department:

	Analysis Date		04/07/08	04/07/08	04/07/08		04/07/08		04/07/08	04/07/08	04/07/08	04/07/08
3/19/08 3/20/08	RQ											
Sample Date: 03/19/08 Receive Date:03/20/08	RPD Limit			20.000					•			
Samp Recei	RPD(%)			n/a								
	Upper Limit		105.000		105.000		105.000		105.000	300.000	105.000	120.000
	Lower Limit		30.000		30.000		30.000		30.000	-10.000	30.000	80.000
	Units		% Recov	RPD	% Recov		% Recov		% Recov	pCi/g	% Recov	% Recov
	QC Yield		96.200		99.700		99.600		132.000	n/a	91.500	106.239
	QC Found QC Yield		96.2	U1.5E-02	99.7		9.66		132	U-2.8E-01	91.5	74.5
	CAS#	I SAMPLE	SR85	SR-RAD	SR85	I SAMPLE	SR85		SR85	10098-97-2	SR85	10098-97-2
SDG Number: WSCF20080591 Matrix: SOLID Test: Strontium 89/90	Analyte	Lab ID: W08GR00694 BATCH QC ASSOCIATED WITH SAMPLE	Sr-85 Tracer by Beta Counting	Strontium-89/90	Sr-85 Tracer by Beta Counting	Lab ID: W08GR00695 BATCH QC ASSOCIATED WITH SAMPLE	Sr-85 Tracer by Beta Counting	1 oc	Sr-85 Tracer by Beta Counting	Strontium-89/90	Sr-85 Tracer by Beta Counting	Strontium-89/90
SDG N Matrix: Test: St	QC Type	Lab ID: BATCH	DUP	DUP	SURR	Lab ID: BATCH	SURR	BATCH QC	BLANK	BLANK	CS	SOT

Radiochemistry

Department:

Part Part	SDG Number: WSCF20080591 Matrix: SOLID Test: Uranium Isotopics by AEA	91 EA						Samp Rece	Sample Date: 03/06/08 Receive Date:03/19/08	3/06/08 3/19/08	
NSGROOG63	Analyte	CAS#	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
233/234 0.52 91.030 % Recor 30.000 105.000 7.407 nm-233/234 0.52 RPD 15117-96-1 4.1e-2 RPD 7.595 nm-238 15117-96-1 4.1e-2 RPD 7.505 7.595 nm-238 0.238 0.46 7.10 8.750 7.500 7.595 ASSOCIATED WITH SAMPLE ASSOCiated by AEA 88.630 % Recor 70.000 105.000 105.000 tracer by AEA U232 4.142 82.650 % Recor 30.000 105.000 105.000 nm-233/234 13966-29-5 1.6e-2 0.016 pC/lig -10.000 1000.000 nm-238 24678-82-8 11-5 72.160 % Recor 75.000 105.000 nm-238 15117-96-1 N/A 100.00 100.00 105.000 nm-238 16107-96-1 100.00 100.00 <td>W08GR00663 C ASSOCIATED V</td> <td>VITH SAMPLE</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	W08GR00663 C ASSOCIATED V	VITH SAMPLE									
10.233/234 0.62 RPD 7.407 10.738 0.46 RPD 7.595 10.738 0.46 RPD 7.595 10.738 0.46 RPD 7.595 10.738 0.46 RPD 7.595 10.238 0.46 RPD 7.595 10.850CIATED WITH SAMPLE 4.101 97.750 % Recor 105.000 105.000 108GR00695 ASSOCIATED WITH SAMPLE 4.101 97.750 % Recor 105.000 105.000 ASSOCIATED WITH SAMPLE ASSOCIATED WITH SAMPLE 88.630 % Recor 105.000 105.000 Interer by AEA U232 1.142 82.650 % Recor 105.000 1000.000 Interer by AEA U232 1.15-3 1.000 1000.000 1000.000 Interer by AEA U232 1.15-3 1.16-3 1.000 1000.000 1000.000 Interer by AEA U232 1.15-3 1.15-3 1.15-0 1.1000 1000.000 1000.000	232 tracer by AEA	U232	3.975	91.030	% Recov	30.000	105.000				04/02/08
15117-96-1 4.16-2 RPD 7.595 1mm-238 U-238 0.46 RPD 12.245 108GR00694 ASSOCIATED WITH SAMPLE 4.101 97.750 % Recov 30.000 105.000 108GR00695 ASSOCIATED WITH SAMPLE 4.101 97.750 % Recov 30.000 105.000 108GR00695 ASSOCIATED WITH SAMPLE 4.101 97.750 % Recov 30.000 105.000 108GR00695 ASSOCIATED WITH SAMPLE 4.101 97.750 % Recov 105.000 105.000 108GR00695 ASSOCIATED WITH SAMPLE 4.102 88.630 % Recov 105.000 105.000 108GR00695 ASSOCIATED WITH SAMPLE 4.142 88.630 % Recov 105.000 105.000 108GR00695 ASSOCIATED WITH SAMPLE 1.66-2 0.016 10.000 1000.000 108GR01696 ASSOCIATED WITH SAMPLE 1.15 72.160 % Recov 100.000 1000.000 108GR01696 ASSOCIATED WITH SAMPLE 1.15 72.160 % Recov	anium-233/234	U-233/234	0.52		RPD			7.407	20.000		04/02/08
12.245	anium-235	15117-96-1	4.1e-2		RPD			7.595	20.000		04/02/08
V08GR00694 ASSOCIATED WITH SAMPLE 4.101 97.750 % Recov 30.000 2 tracer by AEA U232 4.101 97.750 % Recov 30.000 ASSOCIATED WITH SAMPLE ASSOCIATED WITH SAMPLE 2 tracer by AEA 3.96 88.630 % Recov 30.000 2 tracer by AEA U232 4.142 82.650 % Recov 30.000 2 tracer by AEA U232 4.142 82.650 % Recov 30.000 2 tracer by AEA U232 4.142 82.650 % Recov 30.000 2 tracer by AEA U232 1.66-2 0.016 pCi/g -10.000 2 tracer by AEA U232 1.16-2 0.016 pCi/g -10.000 2 tracer by AEA U232 11.5 72.160 % Recov 75.000 2 tracer by AEA U232 N/A n/a % Recov 75.000 2 tracer by AEA 15117-96-1 N/A n/a % Recov 75.000 2 tracer by AEA 166-2 100.237 % Recov 75.000 </td <td>anium-238</td> <td>U-238</td> <td>0.46</td> <td></td> <td>RPD</td> <td></td> <td></td> <td>12.245</td> <td>20.000</td> <td></td> <td>04/02/08</td>	anium-238	U-238	0.46		RPD			12.245	20.000		04/02/08
VO8GR00695 ASSOCIATED WITH SAMPLE 3.96 88.630 % Recov 30.000 2 tracer by AEA U232 4.142 82.650 % Recov 30.000 um-233/234 U232 4.142 82.650 % Recov 30.000 um-236 15117-96-1 6.56-3 0.006 pCi/g -10.000 um-238 24678-82-8 U2e-3 n/a pCi/g -10.000 um-238 U232 11.5 72.160 % Recov 75.000 um-233/234 15117-96-1 N/A n/a % Recov 75.000 um-235 15117-96-1 N/A n/a % Recov 75.000 um-235 15117-96-1 N/A n/a % Recov 75.000	W08GR00694 DC ASSOCIATED V	VITH SAMPLE	4.101	97.750	% Recov	30.000	105.000				04/02/08
tracer by AEA U232 4.142 82.650 % Recov 30.000 um-233/234 13966-29-5 1.6e-2 0.016 pCi/g -10.000 um-235 15117-96-1 6.5e-3 0.006 pCi/g -10.000 um-238 24678-82-8 U2e-3 n/a pCi/g -10.000 um-233/234 13966-29-5 N/A n/a % Recov 75.000 um-235 15117-96-1 N/A n/a % Recov 75.000 um-236 15118-82-8 19 100.237 % Recov 75.000	W08GR00695 OC ASSOCIATED V	VITH SAMPLE	3.96	88.630	% Recov	30.000	105.000				04/02/08
U232 4.142 82.650 % Recov 30.000 13966-29-5 1.6e-2 0.016 pCi/g -10.000 15117-96-1 6.5e-3 0.006 pCi/g -10.000 24678-82-8 U2e-3 n/a pCi/g -10.000 U232 11.5 72.160 % Recov 30.000 13966-29-5 N/A n/a % Recov 75.000 15117-96-1 N/A n/a % Recov 75.000 24678-82-8 19 100.237 % Recov 75.000) C										
/234 13966-29-5 1.6e-2 0.016 pCi/g -10.000 15117-96-1 6.5e-3 0.006 pCi/g -10.000 24678-82-8 U2e-3 n/a pCi/g -10.000 by AEA U232 11.5 72.160 % Recov 30.000 /234 13966-29-5 N/A n/a % Recov 75.000 15117-96-1 N/A n/a % Recov 75.000 24678-82-8 19 100.237 % Recov 80.000	232 tracer by AEA	U232	4.142	82.650	% Recov	30.000	105.000				04/02/08
15117-96-1 6.5e-3 0.006 pCi/g -10.000 124678-82-8 U2e-3 n/a pCi/g -10.000 124678-82-8 U2e-3 n/a pCi/g -10.000 122 11.5 72.160 % Recov 30.000 1234 N/A n/a % Recov 75.000 15117-96-1 N/A n/a % Recov 75.000 24678-82-8 19 100.237 % Recov 80.000	anium-233/234	13966-29-5	1.6e-2	0.016	pCi/g	-10.000	1000.000				04/02/08
24678-82-8 U2e-3 n/a pCi/g -10.000 by AEA U232 11.5 72.160 % Recov 30.000 /234 13966-29-5 N/A n/a % Recov 75.000 15117-96-1 N/A n/a % Recov 75.000 24678-82-8 19 100.237 % Recov 80.000	anium-235	15117-96-1	6.5e-3	900.0	pCi/g	-10.000	1000.000				04/02/08
by AEA U232 11.5 72.160 % Recov 30.000 / 334 13966-29-5 N/A n/a % Recov 75.000 / 24678-82-8 19 100.237 % Recov 80.000	anium-238	24678-82-8	U2e-3	n/a	pCi/g	-10.000	1000.000		,		04/02/08
73.4 13966-29-5 N/A n/a % Recov 75.000 15117-96-1 N/A n/a % Recov 75.000 24678-82-8 19 100.237 % Recov 80.000	232 tracer by AEA	U232	11.5	72.160	% Recov	30.000	105.000				04/02/08
15117-96-1 N/A n/a % Recov 75.000 24678-82-8 19 100.237 % Recov 80.000	anium-233/234	13966-29-5	N/A	n/a	% Recov	75.000	125.000				04/02/08
24678-82-8 19 100.237 % Recov 80.000	anium-235	15117-96-1	N/A	n/a	% Recov	75.000	125.000				04/02/08
	anium-238	24678-82-8	19	100.237	% Recov	80.000	120.000				04/02/08

M4W41-SLF-08-494

ATTACHMENT 4

SAMPLE RECEIPT INFORMATION

Consisting of 13 pages Including cover page

Waste Sampling and Characterization Facility

P.O. BOX 1970 S3-30, Richland, WA 99352 PHONE: (509) 373-7004/FAX: (509) 373-7134

ACKNOWLEDGMENT OF SAMPLES RECEIVED

Groundwater Remediation Program

Customer Code: GPP

Richland, WA 99354 Attn: Steve Trent

PO#: 123163/ES20 Group#: 20080591 Project#: F08-070

Proj Mgr: Steve Trent E6-35 Phone: 373-5869

The following samples were received from you on 03/20/08. They have been scheduled for the tests listed beside each sample. If this information is incorrect, please contact your service representative. Thank you for using Waste Sampling and Characterization Facility.

Sample#	Sample Id	Tests Scheduled	Matrix	Sample Date
W08GR00694	B1TN41	@AEA-33 @GEA-GI	Solid, or handle as if solid PP @AEA-30 @AEA-31 @AEA-3 PP @GPP6010 @IC-30 @SR89_	2
W08GR00695	B1TNP2	TRENT @2008 @8015G	NH4-IC PERSOLID Solid, or handle as if solid PP @AEA-30 @AEA-31 @AEA-3 PP @GPP6010 @IC-30 @SR89	2
W08GR00696	B1TN43	@TPHD-WA CN-02 TRENT @VOA-GPP	NH4-IC PERSOLID Solid, or handle as if solid	03/19/08
W08GR00697		TRENT @VOA-GPP TRENT	Solid, or handle as if solid Solid, or handle as if solid	
W08GR00699		TRENT	Solid, or handle as if solid	

Test Acronym Description

Test Acronym	Description
 @2008	ICP-200.8 MS All possible meta
@8015GPP	Alcohols, Glycols - 8015 and a little and will be a little and the
@AEA-30	Plutonium Isotopics by AEA
@AEA-31	Americium by AEA
@AEA-32	Uranium Isotopics by AEA
@AEA-33	Neptunium by AEA
@GEA-GPP	Gamma Energy Analysis-grd H2O
@GPP6010	ICP Metals Analysis, Grd H20 P
@IC-30	Anions by Ion Chromatography
@SR89 90	Strontium 89/90 Action of the continue of the second of
@SVOCGPP	SW-846 8270C Semi-Vols
@TPHD-WA	NWTPH-D TPH Diesel Range (Wa)
@VOA-GPP	VOA Ground Water Protection

Groundwater Remediation Program

Customer Code: GPP

Richland, WA 99354 Attn: Steve Trent

PO#: 123163/ES20 Group#: 20080591

Project#: F08-070 Proj Mgr: Steve Trent E6-35 Phone: 373-5869

Test Acronym Description

Test Acronym	Description
CN-02 NH4-IC PERSOLID	Cyanide by Midi/Spectrophotom Ammonia (N) by IC Percent Solids

riuor namtora unc.	CHAIL	CHAIN OF LUSTOUT/SAMPLE ANALTSIS KEQUEST	เบบะว เ	FU8-U/U-004	PAGE 1 OF 2
COLLECTOR COSTO POLITICAL CONTRACTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA
NCO SAMPLER	TRENT, STEVE	373-5869	WIDRIG, DL		TURNAROUND
SAMPLING LOCATION	PROJECT DESIGNATION		SAF NO. F08-070	AIR QUALITY	45 Days / 45 Days
ICE CHEST NO.	FIELD LOGBOOK NO.	ACTUAL SAMPLE DEPTH	COA	METHOD OF SHIPMENT	
	40F . P 488.1	Pay 79.9-82.1	123163ES20	GOVERNMENT VEHICLE	
SHIPPED TO	OFFSITE PROPERTY NO.		BILL OF LADING/AIR BILL NO	·	
Waste Sampling & Characterization	N/A		N/A		
MATRIX* POSSIBLE SAMPLE HAZARDS/ REMARKS A=Air Contains Radioactive Material at concentrations	PRESERVATION	None Cool~4C Cool~4C	Cool~4C Cool~4C None		
	TYPE OF CONTAINER	G/P G aG	G G/P Square Bottle - Poly	Poly	
ij	NO. OF CONTAINER(S)	1 1 1	1 1 1	1	
SE=Sediment T=Tissue V=Vegitation	VOLUME	250mL 250mL 250mL	125g 500mL 500mL		
w=water w=water x=Other x=Other Radioactive Tie To B1TN38	SAMPLE ANALYSIS	SEETEH (1) IN SEETEH (2) IN SEETEH (3) IN SPECIAL SPECIAL SPECIAL SPECIAL INSTRUCTIONS INSTRUCTIONS	SEE ITEM (3) IN SEE ITEM (4) IN SEE ITEM (5) IN SEE ITEM (6) IN SPECIAL SPECIAL SPECIAL SPECIAL SPECIAL INSTRUCTIONS INSTRUCTIONS INSTRUCTIONS	NI (9) IN	; ; ,
70080581				·	
SAMPLE NO. MATRIX* B1TN41 SOIL	SAMPLE DATE SAMPLE TIME				
12000000000000000000000000000000000000	<u> </u>				
CHAIN OF POSSESSION	SIGN/ PRINT NAMES	Start start stars	S 21284 2736 1		
	≅	DATE/TIME	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS	STRUCTIONS	
` } 	A ALOUS CEFT	1 3/19/14 (100 DATE/TIME(300			
FILE TANGET BY THE STATE TIME THE PARCHEN STATE TO STATE	3	3/2/08 Jas		<u>い</u>	**************************************
RELINQUISHED BY REMOVED FROM	RECEIVED BY/SIORED IN	DAIE/IIME			
RELINQUISHED BY/REMOVED FROM DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME			
RELINQUISHED BY/REMOVED FROM DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME			
RELINQUISHED BY/REMOVED FROM DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME			
LABORATORY RECEIVED BY SECTION			TITLE		DATE/TIME
FINAL SAMPLE DISPOSAL METHOD DISPOSITION	;	TG	DISPOSED BY		DATE/TIME

A-6003-618(01/06)

Fluor Hanford Inc.	CHAIN	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	EQUEST	F08-070-004	PAG	PAGE 2 OF 2
COLLECTOR (Gents Parison NCO SAMPLER Filter Parison NCO SAMPLER FILTR FILTR FILTR FILTR FILTR FILTR FILT FILTR FIL	COMPANY CONTACT TRENT, STEVE	TELEPHONE NO. 373-5869	PROJECT COORDINATOR WIDRIG, DL	PRICE CODE	; . 2 8	DATA TURNAROUND
SAMPLING LOCATION C5857, 1-030	PROJECT DESIGNATION 200-TW-1 OU Characterization for Well 299-E33-342 - Soil	r Well 299-E33-342 - Soil	SAF NO. F08-070	AIR QUALITY		45 Days / 45 Days
ICE CHEST NO.	FIELD LOGBOOK NO.	ACTUAL SAMPLE DEPTH	COA 123163ES20	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ient :	
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO.		BILL OF LADING/AIR BILL NO.			

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

** Analytical batch QC must be run on a sample associated with this SAF.

(1)ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobait, Manganese, Vanadium, Zinc} ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Selenium, Strontium, Thallium, Uranium} ICP Metals - 6010B (Add-On) {Boron, Lithium} 200.8_HG - ICPMS; Cations (IC) - 300.7 {Nitrogen in ammonium}

**PAlcohols, Glycols, & Ketones - 8015 {Diethyl ether, Ethylene glycol}

**Typen-Loya - 8270B (Add-On) {3.44 Methylphenol (cresol, m+p), Tributyl phosphate}

**Typen-Loya - 8270B (Add-On) {3.44 Methylphenol (cresol, m+p), Tributyl phosphate}

**Typen-Loya - 8270B (Add-On) {4.45 Methylphenol (cresol, m+p), Tributyl phosphate, Sulfate}

**System-VoA - 8270B (Add-On) {1.45 petroleum hydrocarbons - kerosene range}

**Cycyanice (Total) - 335.2; IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphate, Sulfate}

(6)Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-154, Europium-155, Radium-226} Gamma Spec - Add-on {Antimony-125, Radium-228} Isotopic Dranium; Isotopic Uranium; Neptunium-237; Strontium-89;00 - Total Sr, Americum-241;

				מיכים שליים בר שושרות מיים ומיים	בלמופו	700-070-801	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
COLLECTOR NCO SAMPLER	ER CONTROL	-	COMPANY CONTACT TRENT, STEVE	TELEPHONE NO. 373- 5 869	PROJECT COORDINATOR WIDRIG, DL	PRICE CODE 8N	DATA TURNAROUND	
SAMPLING	SAMPLING LOCATION	:			SAF NO.	AIR QUALITY	45 Days / 45 Days	
C5857, I-030	08			izatlon for Well 299-E33-342 - Soil	0/0-8/0			
ICE CHEST NO.	Ö	•	FIELD LOGBOOK NO.	ACTUAL SAMPLE DEPTH	COA 123163ES20	METHOD OF SHIPMENT GOVERNMENT VEHICLE		
SHIPPED TO Waste Sampli	HIPPED TO Waste Sampling & Characterization	J	OFFSITE PROPERTY NO.		BILL OF LADING/AIR BILL NO	:	1	
MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations	"	PRESERVATION	Cool~4C Cool <-7C and >-20C		:		
DL=Drum Liquids DS≂Drum	Contains resolutions to the container of that are not regulated for transportation per 49 CFb but are not releasable per DOE Order	rtation per 49)E Order	TYPE OF CONTAINER	aGs* aGs*				
Solids L=Liquid O=Oil S=Soil	5400.5 (1990/1995)		NO. OF CONTAINER(S)				:	
SE≈Sediment T=Tissue V≈Vegitation		-	YOLUME	40ml			:	
W=Water WI=Wipe X=Other	SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To B1TN38	R STORAGE	SAMPLE ANALYSIS	SEE TIEM (1) IN SEE ITEM (2) IN SPECIAL SPECIAL INSTRUCTIONS				
SAM B1TN39	SAMPLE NO. MATRIX* SOIL (677)	- - :	SAMPLE DATE SAMPLE TIME 3/19/08 1610					1 4
				1039150 1039150				
CHAIN OF	CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	: : : : : : : : : : : : : : : : : : : :		
RELINQUISHED B KACH PALLOR FILON PATION RELINQUISHED B RELINQUISHED B 1-1-10. HARTHOOT RELINQUISHED B	Y/REMOVED FROM Y/REMOVED FROM W/REMOVED FROM	3/4 (0) 1300 DATE/TIME/3 3 - 2D - OS DATE/TIME (4) 5 - 2D - OS DATE/TIME (4)	PATE/TIME OB 1300 IN COLUTS CAPPARTI DATE/TIME/S BARGHEN - 10 - 00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	11/65 13/00 DATE/TIME 73COO DATE/TIME 73COO DATE/TIME 23/20/08/4/25	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS Ses			
RELINQUISH	RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME)	
RELINQUISH	RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME				
Z RELINQUISH	RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME				
LABORATORY SECTION	ORY RECEIVED BY			F	пте	!	DATE/TIME	
	MPLE DISPOSAL METHOD			: :	DISPOSED BY		DATE/TIME	
			:			:	A-6003-618(01/06)	

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CHAMM OF CUSTOUT/ SAMPLE AMARISMS REQUEST

A of 84 Sec. FINALL

Fluor Hanford Inc.	CHAIN (CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	QUEST	F08-070-002	PAGE 2 OF 2
COLLECTOR (Cevin Parkerson) NCO SAMPLER (Cevin Parkerson)	COMPANY CONTACT TRENT, STEVE	TELEPHONE NO. 373-5869	PROJECT COORDINATOR WIDRIG, DL	PRICE CODE 8	8N TURNAROUND
SAMPLING LOCATION C5857, I-030	PROJECT DESIGNATION 200-TW-1 OU Characterization for Well 299-E33-342 - Soil	Well 299-E33-342 - Soil	SAF NO. F08-070	AIR QUALITY	45 Days / 45 Days
ICE CHEST NO.	FIELD LOGBOOK NO.	ACTUAL SAMPLE DEPTH	COA 123163ES20	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ENT
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	:	BILL OF LADING/AIR BILL NO. N/A		

- ** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
 - ** Analytical batch QC must be run on a sample associated with this SAF.
 - ** All VOA samples will be collected using EPA Method 5035A.
- ** VOA sample but sets will include 3 but less for in the final details, 5 bottles for low level analysis, and 1 methanol process control sample.

 ** The laboratory is to use one of the low level vOA bottles for moisture content determination.

 ** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be include as part of the sample ID reported in the final data packages.

 (1)VOA 5035/8260 (HIGH LEVEL); VOA 5035/8260 (LOW LEVEL) (Add-On) {1-Butanol, Trichloromonofluoromethane, cis-1,2-Dichloroethylene, trans-1,2-Dichloroethylene}

A-6003-618(01/06)

COLLECTOR Key'n Palkerson NCO SAMPLER	COMPANY CONTACT TRENT, STEVE	TELEPHONE NO. 373-5869	PROJECT COORDINATOR WIDRIG, DL	PRICE CODE 8N	DATA
SAMPLING LOCATION CS857, 1-030	PROJECT DESIGNATION 200-TW-1 OU Characterization for Well 299-E33-342 - Soil	for Well 299-E33-342 - Soil	SAF NO. F08-070	AIR QUALITY	45 Days / 45 Days
ICE CHEST NO.	FIELD LOGBOOK NO.	14 ACTUAL SAMPLE DEPTH	COA 123163ES20	GOVERNMENT VEHICLE	
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO.		BILL OF LADING/AIR BILL NO		:
MATRIX* POSSIBLE SAMPLE HAZARDS/ REMARKS A=Air Contains Partina Material at concentrations	PRESERVATION	Cool~4C		i	:
Di=Drum Contents recolorative rifecting at Content agoing that are not regulated for transportation per 49 DS=Drum CFR but are not releasable per DOE Order Solids 5400.5 (1990/1993)	TYPE OF CONTAINER	965*			:
	NO. OF CONTAINER(S)				
SE = Sediment T = Tissue Y = Vegitation	VOLUME	40mL			
w=water WI=Wire X=Other Radioactive Tie To B1TN38	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL SPECIAL INSTRUCTIONS			i
SAMPLE NO. MATRIX*	SAMPLE DATE SAMPLE TIM	J.			
B1TN40 SOIL	3/4/07 1010	>			
CHATWOE DOCCECTON	STANT DOTATION OF THE PROPERTY	US14591			
ED FROM S-3.0 - O'S ETTIME ED FROM S-3.0 - O'S ED FROM SATE/TIME ED FROM SATE/TIME	1 CIV	3/19/09 (300 ATE/TIME ADI 20/09/12) 3.30-08(1) 3.30-08(1) 3.30-08(1) 5.40-08(1) 5.40-08(1) 5.40-08(1)	** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. ** Analytical batch QC must be run on a sample associated with this SAF. ** Analytical batch QC must be cull on a sample associated with this SAF. (1)VOA - 5035/8260 (TCL); VOA - 5035/8260 - (Add-On) {1-Butanol, Trichloromonofluoromethane, cis-1,2-Dichloroethylene, trans-1,2-Dichloroethylene}	cterization and Monitoring Sarun on a sample associated vated using EPA Method 5035 5035/8260 - (Add-On) {1-1,2-Dichloroethylene, trans-	mpling and Analysis GKI with this SAF. A. Butanol, 1,2-Dichloroethylene}

DISPOSAL METHOD

FINAL SAMPLE DISPOSITION

A-6003-618(01/06)

DATE/TIME

DISPOSED BY

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A-6003-618(01/06)

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Fluor Hanford Inc.	ord Inc.	CHAIN O	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	EQUEST	F08-070-011	PAGE 2 OF 2	
COLLECTOR (av	Zavin Pattersor Fluor Paniore	COMPANY CONTACT TRENT, STEVE	TELEPHONE NO. 373-5869	PROJECT COORDINATOR WIDRIG, DL	PRICE CODE 8	BA DATA TURNAROUND	۵
SAMPLING LOCATION C5857, 1-030-D		PROJECT DESIGNATION 200-TW-1 OU Characterization for Well 299-E33-342 - Soil	well 299-E33-342 - Soil	SAF NO. F08-070	AIR QUALITY	45 Days Days	
ICE CHEST NO.		FIELD LOGBOOK NO.	ACTUAL SAMPLE DEPTH	COA 123163ES20	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ENT	
SHIPPED TO Waste Sampling & Characterization	G	OFFSITE PROPERTY NO.		BILL OF LADING/AIR BILL NO.			

- ** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

- ** Analytical batch QC must be run on a sample associated with this SAF.

 (1)ICP/MS 200.8 (TAL) {Antimony, Barium, Cricomium, Cobalt, Manganese, Vanadium, Zinc} ICP/MS 200.8 (Add-on) {Arsenic, Beryllium, Lead, Selenium, Strontlum, Thallium, Uranium} ICP Metals 6010B (TAL) {Aluminum, Copalt, Manganese, Vanadium, Cobalt, Manganese, Vanadium, Copalt, Manganese, Vanadium, Vanadium

W=Water

S=Soil

Uqulds

5

PAGE 1

CHAIN OF CUSTOUT/SAMPLE ANALTSIS KEYUES!

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Fluor Hanford Inc.	CHAIN	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	EQUEST	F08-070-009	PAGE	PAGE 2 OF 2
COLLECTOR (2002) Patheract NCO SAMPLER (2007) COLD	COMPANY CONTACT TRENT, STEVE	TELEPHONE NO. 373-5869	PROJECT COORDINATOR WIDRIG, DL	PRICE CODE 8		DATA
SAMPLING LOCATION C5857, 1-030-D	PROJECT DESIGNATION 200-TW-1 OU Characterization for Well 299-E33-342 - Soil	Well 299-E33-342 - Soil	SAF NO. F08-070	AIR QUALITY	П	45 Days / 45 Days
ICE CHEST NO.	FIELD LOGBOOK NO.	ACTUAL SAMPLE DEPTH	COA 123163ES20	METHOD OF SHIPMENT GOVERNMENT VEHICLE	IENT CLE	
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO.	: : :		

- ** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

 ** Analytical batch QC must be run on a sample associated with this SAF.

 ** Analytical batch QC must be run on a sample associated with this SAF.

 ** All VOA samples will be collected using EPA Method 5035A.

 ** VOA samples will be collected using EPA Method 5035A.

 ** VOA bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample.

 ** VOA bottles sets will include 3 bottles for moisture content determination.

 ** VOA bottles sets will include 3 bottles for moisture content determination.

 ** VOA bottles sets will include 3 bottles for moisture content determination.

 ** VOA bottles set will not be abbelled with an appended suffix of K. L. M., N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be include as part of the sample ID reported in the final data packages.

 (1)VOA 5035/8260 (HIGH LEVEL); VOA 5035/8260 (LOW LEVEL) (Add-On) {1-Butanol, Trichloromonofluoromethane, cis-1,2-Dichloroethylene}

DATE/TIME

DISPOSED BY

DISPOSAL METHOD

FINAL SAMPLE DISPOSITION

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	,,,,,	:;	· · · · · · · · · · · · · · · · · · ·		• • • • • • • • • • • • • • • • • • • •	>+> >> >> >> >> >> >> >> >> >> >> >> >>	• • • • • • • • • • • • • • • • • • • •
COLLECTOR		COMPANY CONTACT	TELEPHONE NO		PROJECT COORDINATOR		474.0
NCO SAMPLER Keyin Patterson	į.	TRENT, STEVE	373-5869		WIDRIG, DL	PRICE CODE 8N	TURNAROUND
SAMPLING LOCATION C5857, 1-030-D		PROJECT DESIGNATION 200-TW-1 OU Characterization for Well 299-E33-342 - Soil	for Well 299-E33-342 - Soil		SAF NO. F08-070	AIR QUALITY	45 Days / 45 Days
ICE CHEST NO.		FIELD LOGBOOK NO.	ACTUAL SAMPLE DEPTH	PLE DEPTH	COA	METHOD OF SHIPMENT	
		HNF-N-488.1	Py 79.5'-	82.1	123163ES20	GOVERNMENT VEHICLE	
SHIPPED TO	Ξ	OFFSITE PROPERTY NO.			BILL OF LADING/AIR BILL NO.		i
Waste Sampling & Characterization		N/A			N/A		
MATRIX* POSSIBLE SAMPL A=Air DL=Drum Contains Radioactive N	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations	PRESERVATION	Cool~4C	!		· !	
	that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)	TYPE OF CONTAINER	aGs*				:
L=Liquid O=Oil S=Soil		NO. OF CONTAINER(S)			:		
SE=Sediment T=fSsue V=Veglation W=Water		VOLUME	40mL			: :	
WI=Wipe X≠Other Radioactive Tie To B1TN38	SPECIAL HANDLING AND/OR STORAGE dioactive Tie To B1TN38	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS				
SAMPLE NO.	MATRIX*	SAMPLE DATE SAMPLE TIME	# A A A A A A A A A A A A A A A A A A A				
B1TNP1 SOIL		2/4/10	the control of the co	No. of the last of	The second secon		
5151		000 80121/0	:		***		-
9						J	
				1 .	:		:
CHAIN OF POSSESSION		SIGN/ PRINT NAMES	1031170	SPEC	SPECIAL INSTRUCTIONS	: :	
RELINQUISHED BY/REMOVED FROM RELINQUISHED BY/REMOVED FROM FALL OUTSHED BY/REMOVED FROM FLUOR Hanford	DATE/TIME DATE/TIME	DATE/TIME RECEIVED BY/STORED IN ON 1/OC NOONS REFE H/ DATE/TIME DATE/TIME DATE/TIME SEPTIME DATE/TIME SAND SAND	3/11/05 DATE DATE DATE OFFE	TIME SO	** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. ** Analytical batch QC must be run on a sample associated with this SAF. ** All VOA samples will be collected using EPA Method 5035A. (1)VOA - 5035/8260 (TCL); VOA - 5035/8260 - (Add-On) {1-Butanol, Trichloromonofluoromethane, cis-1,2-Dichloroethylene, trans-1,2-Dichloroethylene)	erization and Monitoring S in on a sample associated ed using EPA Method 503: 5035/8260 - (Add-On) {1	ampling and Analysis GKI with this SAF. 5A. Butanol, 1,2-Dichloroethylene}
RELENCESHED BY REMOVED FROM	DATE/TIME	RECEIVED BY	DATE	OATE/TIME			
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE	DATE/TIME			
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE	DATE/TIME			
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE	DATE/TIME			
LABORATORY RECEIVED BY SECTION			:	TITLE			DATE/TIME

M4W41-SLF-08-494

ATTACHMENT 5

SAMPLE RECORD SHEET

Consisting of 3 pages Including cover page

		SAN	IPLE RE	CORD	SHEET		
Sample Number	Sample Suffix ¹	Empty Weight ² (g)	Weight with Sample ³ (g)	Weight of Sample⁴ (g)	Methanol Added (g)	Methanol Added (mL)	Weight of Methanol and Sample
BITN43	K	31.0	35.7	4.7			
BITN43	L	30.8	35.7	4.9			
BITNYS	M	30 7	35.4	4.7			
BITN43		31.2	36.0	48			
BIIN43	Р	30 6	35.4	4.8			
BITAPI		29.5			4	5	33.5
BITN43	-W	29.8	34.6	4.8	4	5	38.6
BITNE	X	29.4	34.3	4.9	3.9	- 5	38.2
BITN43	Y	29.5	34.1	46	4	-	38.1

¹Sample suffix of L, K, M, N and P relate to low-level concentration samples and will not have any preservation beyond freezing between -7C and -20C.

Sample suffix of W, X, and Y relate to methanol preservation for high-level samples.

²Empty weight is to include all labels, stickers, bags, and anything else that will be associated with the bottle when it is weighed with the sample.

³Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.

⁴Sample weight is the vial with sample minus the vial empty

		SAN	IPLE RE	CORD	SHEET		
Sample Number	Sample Suffix ¹	Empty Weight ² (g)	Weight with Sample ³ (g)	Weight of Sample ⁴ (g)	Methanol Added (g)	Methanol Added (mL)	Weight of Methanol and Sample
B111/39	K	30.4	35.4	5.0			
BITNIS	L	34.8	35.6	4.8			
BITN39	M	30.4	35.4	5.0	*		
B/1N39	N	30.8	35.8	5.0			
13/17/39	Р	30.4	35.4	4.8			
BITNYO		29.6	_		4	5.0	33.6
BITN 39	W	29.4	34.1	<i>ሃ</i> . ን	4.1	5.0	38.2
BMN39	Х	29.3	33.9	4.6	4.1	5.0	38.0
BITNS9	Y	29.8	34.2	4.4	3. 9	4.5	38./

¹Sample suffix of L, K, M, N and P relate to low-level concentration samples and will not have any preservation beyond freezing between -7C and -20C.

Sample suffix of W, X, and Y relate to methanol preservation for high-level samples.

²Empty weight is to include all labels, stickers, bags, and anything else that will be associated with the bottle when it is weighed with the sample.

³Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.

⁴Sample weight is the vial with sample minus the vial empty